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”Harnessing trade policy and transport logistics to build sustainable and resilient food supply chains in the Caribbean and Arab regions”



Building sustainable food supply chains through trade policy in the Caribbean region

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Acronyms and Abbreviations

CARICOM	Caribbean Community
CARIFORUM	Caribbean Forum
CDB	Caribbean Development Bank
CSME	CARICOM Single Market and Economy
EPA	economic partnership agreement
FAO	Food and Agriculture Organization of the United Nations
GDP	gross domestic product
HS	Harmonized System
ITC	International Trade Centre
NTM	non-tariff measure
RCA	revealed comparative advantage
SDG	Sustainable Development Goal
SIDS	small island developing state(s)
SPS	sanitary and phytosanitary (measures)
UNCTAD	United Nations Trade and Development
UNFSS	United Nations Forum on Sustainability Standards
VSS	voluntary sustainability standards
WTO	World Trade Organization



Executive Summary

This report examines the structure of agrifood trade in the Caribbean Community (CARICOM) and its implications for food security. It focuses on the role of trade policy and regional integration in strengthening resilient food systems and reducing the region's high dependence on external food supplies.

CARICOM remains heavily reliant on food imports. In 2023, agrifood imports reached \$7.1 billion and accounted for a significant share of total merchandise imports. At the same time, agrifood exports are concentrated in a limited number of products—primarily beverages, seafood, sugar and rice—and are directed to a narrow range of external markets. Intraregional agrifood trade remains modest, representing only about 11.5 per cent of total agrifood imports. This reflects weak regional value chain integration and a continued reliance on extra-regional suppliers.

Overall, food security challenges in the region are closely linked to a structural imbalance between high external dependence and limited regional production and trade integration.

These constraints are reinforced by structural characteristics common to small island developing States. Limited arable land, small production scales, high transport and logistics costs and fragmented markets constrain productivity and increase the cost of moving food across the region. Exposure to climate change, natural disasters and global supply chain disruptions further affects agricultural output and the stability of food supplies.

As a result, food insecurity remains widespread, affecting nearly 60 per cent of the population, with particularly severe conditions in Haiti and Jamaica. Women are disproportionately affected, reflecting persistent inequalities in access to income and productive resources. High import dependence, combined with exposure to global price volatility and external shocks, continues to affect the affordability and stability of food supplies.

Trade policy plays an important role in shaping these outcomes. Regional frameworks, including the Common External Tariff and other integration initiatives, aim to support domestic production and facilitate regional trade. However, uneven implementation, the continued use of non-tariff measures and administrative charges, and high maritime transport costs limit their effectiveness. Differences in sanitary and phytosanitary requirements and limited cold-chain capacity further constrain the movement of food within the region and reinforce reliance on external markets.

At the same time, opportunities exist to strengthen the region's agrifood systems. Voluntary sustainability standards (VSS) can improve market access and support higher-value production, although limited uptake and the costs of certification may constrain participation by small producers without targeted support. Strengthening linkages between agriculture, tourism and domestic markets could also help expand demand for locally produced food and improve economic resilience.

Strengthening regional integration, improving the implementation of trade policies and investing in more efficient and resilient supply chains will be critical to reducing external vulnerability and improving food and nutrition security. Priorities include improving transport and storage infrastructure, advancing regulatory harmonization, facilitating intraregional trade and supporting climate-resilient and inclusive agricultural production. Progress in these areas would help strengthen regional value chains, reduce exposure to external shocks and support more sustainable and resilient development across CARICOM.

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Explanatory notes for the report on the Caribbean Region

In this report,

The Caribbean region refers to the Caribbean Community (CARICOM), comprising 15 member States: Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

The tables and figures may not necessarily list all CARICOM member States. Some countries may not be included in specific figures/tables owing to data availability.

Agrifood refers to products and activities linked to the production, processing, distribution and trade of agricultural and food commodities. In international trade statistics, agrifood products are commonly classified under Harmonized System (HS) codes 01–22. See annex table A1 for a full list of these product categories along with their respective HS codes. Products listed at the HS2-level indicate the chapter under which the product is listed. It refers to the first two digits in the product nomenclature. HS4 and HS6 levels represent more disaggregated levels of product classification. All the figures and tables providing data about these products cover HS 01–22.

The term dollar (\$) refers to the United States dollar.

Tons refer to metric tons.

Use of a dash between years (e.g. 2020–2024) represents the full period, including the initial and final year.





Introduction



Introduction

This report provides a comprehensive assessment of the agrifood trade landscape and food security challenges within the Caribbean Community (CARICOM), a regional organization comprising 15 member States: Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, and Trinidad and Tobago.

The primary objective is to identify critical gaps and opportunities for strengthening food systems through regional collaboration, improved trade policy, and sustainable agricultural development. The report also aims to support CARICOM's efforts toward building resilient, inclusive, and climate-smart agrifood supply chains that reduce external dependence and enhance food availability, access, and affordability.

In support of this objective, the study aligns closely with several United Nations Sustainable Development Goals (SDGs). Chief among these is SDG 2 (Zero Hunger), which targets the eradication of hunger and the promotion of sustainable agriculture. Additional contributions are made to SDG 5 (Gender Equality), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 12 (Responsible Consumption and Production). These goals form the foundation for the report's proposed policy actions, which seek to foster equitable and sustainable development in the Caribbean. The approach taken emphasizes gender equality and inclusivity, acknowledging the essential role of women, youth, and persons with disabilities in the region's agrifood systems. Recognizing their contributions and specific challenges is critical to ensuring that resilience-building efforts do not leave behind vulnerable populations. Inclusive policymaking and capacity-building initiatives are key elements of the report's framework.

The report is structured as follows:

Chapter I provides an overview of the agrifood trade landscape within CARICOM. It examines the main agricultural products traded both within and outside the region, offering insights into the structure of their food supply chains, including the main actors and activities involved. The chapter also explores relevant trade policy measures, such as tariffs and regional or bilateral trade agreements, which directly or indirectly impact food security. Finally, it identifies the region's competitive strengths in the agrifood sector through an analysis of the revealed comparative advantage (RCA) of selected food products.

Chapter II delves into the triggers of food insecurity in the CARICOM region. It explores domestic, trade-related and external factors that contribute to food insecurity, analyzing critical variables such as household food expenditure and agricultural land use. By identifying these triggers, the report aims to provide targeted recommendations to address the root causes of food insecurity and enhance the region's capacity to ensure stable and sustainable food supplies.

An analysis of the opportunities and challenges follows in **Chapter III**. On the opportunity side, the report highlights the potential of voluntary sustainability standards (VSS) as a tool for improving regional trade relationships and promoting sustainability within the agrifood



sector. Regarding challenges, it addresses non-tariff measures (NTMs), administrative barriers, and other obstacles that hinder efficient trade in food products. This chapter also emphasizes the importance of strengthening regional trade for food security and exploring the potential consequences of reduced trade volumes on the region's food supply.

Finally, **Chapter IV** provides a comprehensive set of policy recommendations aimed at reinforcing CARICOM's agrifood systems. These recommendations emphasize strengthening intraregional trade, promoting food and nutrition security and ensuring stable livelihoods within the agricultural sector. Addressing persistent challenges, such as climate change, limited financing, and logistical and tariff obstacles, requires a collaborative approach. The policy strategies proposed focus on enhancing food security and resilience through regional cooperation, mutual recognition of sustainability standards and fostering inclusive economic development. This chapter also underscores the importance of empowering vulnerable groups and implementing climate-resilient practices to build a sustainable, self-sufficient agricultural sector capable of withstanding potential future global disruptions.





Chapter I

CARICOM Agrifood Trade Landscape



Chapter

CARICOM's Agrifood Trade Landscape

CARICOM's agrifood trade shows high import dependence and limited regional integration. Exports are concentrated in a few products, while structural constraints—such as small-scale production, limited land and infrastructure gaps—expose the region to external shocks. Greater regional integration and stronger supply chains would help reduce external reliance.

The term Agrifood refers to all products and activities linked to the production, processing, distribution and trade of agricultural and food commodities. It encompasses both primary agricultural goods— such as cereals, fruits, vegetables, meat, and seafood — and processed food products like flour, oils, dairy, and beverages. In international trade statistics, agrifood products are commonly classified under Harmonized System (HS) codes 01 to 22, covering a wide range of goods essential for food security and economic development. Understanding the agrifood sector is crucial for assessing a region's capacity to feed its population, generate export revenues, and ensure resilience against global supply disruptions.

The Caribbean agrifood trade landscape is shaped by its status as a region comprised mainly of small island developing States (SIDS). These countries are heavily reliant on agrifood imports, which amounted to \$7.1 billion in 2023, representing 18.3 per cent of the total \$38.8 billion worth of goods imported by the CARICOM region that year (table 1) While this net food importer region produces and exports agricultural goods such as bananas, sugar, coffee, cocoa, spices and seafood, it relies significantly on imports of staple foods such as wheat, rice, meats and dairy, making it highly vulnerable to fluctuations in global markets.

Table 1**CARICOM's agrifood trade performance: widening gaps between imports and exports, 2021–2023**

(Thousands of United States dollars and percentages)

	2021	2022	2023
EXPORTS			
All products exported from CARICOM	19 377 771	28 734 212	25 252 761
Agrifoods exported from CARICOM	1 840 712	1 944 701	1 866 349
Share of agrifoods in all exported products (per cent)	9.5	6.8	7.4
IMPORTS			
All products imported by CARICOM	31 341 510	39 507 727	38 825 827
Agrifoods imported by CARICOM	5 818 461	6 774 612	7 100 269
Share of agrifoods in all imported products (per cent)	18.6	17.1	18.3
NET (EXPORTS - IMPORTS)			
NET All products CARICOM	-11 963 739	-10 773 515	-13 573 066
NET Agrifoods CARICOM	-3 977 749	-4 829 911	-5 233 920
Share of agrifoods imports in all exported products (per cent)	30.0	23.6	28.1

Source: UNCTAD secretariat calculations based on ITC Trade Map, *Trade statistics for international business development*, available at: <https://www.trademap.org> (accessed July 2024)

Note: Agrifood products refer to all items covered by Harmonized System (HS) codes 01–22.

The Caribbean region's main trade partners are the United States of America and the European Union. However, intra-CARICOM trade in agrifood remains particularly low, amounting to \$812.8 million in 2023, which represented only 11.5 per cent of the region's total agrifood imports (table 2). This highlights weak integration in regional value chains, and the limited ability of CARICOM countries to meet their own food needs through regional production and trade.

Table 2**Intra-CARICOM agrifood trade remains limited compared to global imports, with a modest upward trend, 2021–2023**

(Thousands of United States dollars and percentage)

	2021	2022	2023
Agrifood imports by CARICOM from the world	5 816 414	6 771 147	7 098 036
Agrifood imports within CARICOM	599 417	746 673	812 768
Share of agrifood imports within CARICOM in total agrifood imports (per cent)	10.3	11.0	11.5

Source: UNCTAD secretariat calculations based on ITC Trade Map, *Trade statistics for international business development*, available at: <https://www.trademap.org/> (accessed July 2024)

Note: Agrifood products refer to all items covered by HS codes 01–22.

Most of the countries in the Caribbean are small island developing States (SIDS), which face distinct geographic and economic vulnerabilities. These include high exposure to external shocks, limited economies of scale, high dependence on imported goods, and constrained agricultural capacity. These structural characteristics present significant challenges to reducing reliance on food imports and strengthening food security. Climate change and frequent natural disasters further disrupt agricultural production, while small farm sizes and limited arable land restrict output potential. Additionally, weak infrastructure and logistical inefficiencies increase trade costs, while intraregional trade barriers further impede the flow of goods.

To overcome these challenges, it is essential to enhance regional integration through CARICOM. Greater cooperation and facilitation of intraregional trade could strengthen local value chains and boost food security. By leveraging trade agreements and investing strategically in agriculture, infrastructure and technology, the Caribbean region could create a resilient and competitive agrifood environment. Regarding intraregional agrifood trade, a significant challenge is non-tariff trade barriers, notably, the lack of a regionally harmonised SPS framework.

In conclusion, while the Caribbean region remains a net food importer, with limited intraregional trade and significant external dependencies, there is potential for growth. Key objectives include reducing vulnerability to global market fluctuations, supply chain disruptions, climate-related shocks, and trade barriers, all of which threaten food security. To help achieve this growth, a set of policy recommendations is presented at the end of this report. The next section analyses CARICOM's principal traded products.

A. Agrifood trade flows and volumes

The Caribbean region is both a producer and exporter of various agricultural products, but relies heavily on imports to meet its food needs. Caribbean agrifood imports and exports consist of primary products, processed goods and value-added items.

1. Agrifood exports from CARICOM

By examining export trends for various agrifood product categories of CARICOM (table 3) this study aims to identify their growth potential, thereby providing insights into goods with the greatest possibility for expansion into global markets.

Between 2019 and 2023, CARICOM's agrifood trade patterns revealed diverging trends. Imports increased steadily, particularly in cereals, beverages and processed food products, while export growth remained modest and inconsistent across categories. The total value of agrifood exports was USD 1.747 billion in 2019. It declined to USD 1.679 billion in 2020 due to the global COVID-19 pandemic, and then gradually recovered, reaching USD 1.944 billion in 2022 before slightly falling to USD 1.866 billion in 2023.

These trends reflect vulnerabilities in the region's food system, including heavy dependence on a narrow group of export products, strong reliance on imported staples, and limited diversification of trading partners. These patterns have implications for food availability, trade balance and overall economic resilience in a context of global uncertainty.

An analysis of the HS codes under which CARICOM countries trade agrifood products shows a limited degree of diversification. Between 2019 and 2023, the region's imports consistently covered a broader range of HS categories than its exports. This imbalance reveals that while the Caribbean imports a variety of goods, its exports are concentrated in a few product groups, such

as beverages (HS 22), sugar (HS 17) and seafood (HS 03)¹. This concentration increases vulnerability to external shocks and limits opportunities for innovation and value addition in export sectors.

Table 3

CARICOM's agrifood exports grew modestly overall, though several key categories stagnated or declined, 2019–2023

(Thousands of United States dollars)

HS Code	Product category	2019	2020	2021	2022	2023
TOTAL	All agrifood products (01-22)	1 747 568	1 679 559	1 840 712	1 944 701	1 866 349
22	Beverages, spirits and vinegar	411 017	388 670	450 150	505 764	505 897
03	Fish and crustaceans, molluscs and other aquatic invertebrates	345 687	199 504	290 514	303 000	288 433
10	Cereals	196 235	298 908	245 965	236 731	270 455
17	Sugars and sugar confectionery	112 129	103 725	118 122	122 629	134 375
21	Miscellaneous edible preparations	100 014	122 517	140 475	135 909	132 422
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	138 204	140 187	141 724	165 437	130 05
20	Preparations of vegetables, fruit, nuts or other parts of plants	105 176	96 188	105 673	113 879	85 156
07	Edible vegetables and certain roots and tubers	60 093	64 757	65 069	60 717	69 875
08	Edible fruit and nuts; peel of citrus fruit or melons	105 077	95 467	94 417	79 319	57 766
09	Coffee, tea, maté and spices	37 505	39 445	42 478	45 629	47 506
15	Animal, vegetable or microbial fats and oils and their cleavage products; prep edible fats	26 358	28 889	33 705	39 542	35 245
11	Products of the milling industry; malt; starches; inulin; wheat gluten	26 213	26 674	24 589	35 665	27 591
18	Cocoa and cocoa preparations	31 522	24 827	28 572	32 200	22 781
16	Preparations of meat, of fish, of crustaceans, molluscs or other aquatic invertebrates, or ...	14 94	14 156	15 973	18 871	14 54
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...	13 802	13 698	15 374	14 921	12 212
01	Live animals	6 630	4 856	6 580	9 852	9 308
02	Meat and edible meat offal	7 580	8 678	8 756	14 023	8 399
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit;	4 049	5 960	6 519	5 474	7 686
05	Products of animal origin, not elsewhere specified or included	3 211	1 836	3 623	2 213	4 966
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	538	489	1 355	1 751	987
13	Lac; gums, resins and other vegetable saps and extracts	176	79	377	370	684
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	1 412	49	702	805	15

Source: ITC Trade MAP, *Trade statistics for international business development*. Available at <https://www.trademap.org/> (accessed July 2024)

Note: Agrifood products refer to all items covered by HS codes 01–22.

¹ ¹ For a list of all the agrifood product categories with their HS codes, see table A1 in the Annex section.

The main export categories make significant contributions to the region's economy. Beverages, spirits and vinegar consistently ranked highest, peaking at USD 505 million in both 2022 and 2023. Rum, primarily produced in Barbados, Jamaica and Guyana, maintained a strong global presence.

Exports of fish and crustaceans declined in 2020 but recovered to USD 288 million in 2023, with lobster, shrimp and conch primarily exported to the United States and Canada. Cereals peaked at USD 298 million in 2020; Guyana is the main rice exporter, supplying mainly to CARICOM and the European Union.

Sugars and sugar confectionery exports rose steadily from USD 112 million in 2019 to USD 134 million in 2023, driven by production in Guyana and Belize. Miscellaneous edible preparations, such as sauces and flavouring powders, accounted for USD 132 million in 2023, with Trinidad and Tobago and Jamaica as key exporters. Other notable categories include coffee, tea and spices (USD 47 million in 2023) and cocoa preparations, which peaked in 2021 at USD 32 million.

These data demonstrate the diversity and resilience of the Caribbean region's agrifood exports. The impact of the COVID-19 pandemic is evident, with a noticeable decline in 2020 and gradual recovery thereafter. Certain categories such as beverages and sugar showed consistent growth, reflecting strong international demand and the region's competitive advantage (table 4).

Table 4

CARICOM's agrifood exports. Main exporters and destination economies, 2023

(Thousands of United States dollars)

HS Code	Product Description	Main Exporters	Main Destinations
22	Beverages, spirits and vinegar	Jamaica, Trinidad & Tobago	USA, UK, Jamaica
10	Cereals	Guyana	Jamaica, Trinidad & Tobago
3	Fish and crustaceans	Suriname, Trinidad & Tobago	Netherlands, France, USA
17	Sugars and sugar confectionery	Guyana, Belize	USA, UK, CARICOM markets
7	Edible vegetables and roots	Saint Vincent, Jamaica	USA, UK, CARICOM
8	Edible fruit and nuts	Saint Lucia, Suriname	Netherlands, UK, USA
9	Coffee, tea, maté and spices	Jamaica, Grenada	USA, UK, Netherlands
1	Live animals	Belize, Saint Kitts, Barbados	Mexico, USA, Grenada
16	Preparations of meat or fish	Trinidad & Tobago	USA, CARICOM markets
2	Meat and edible meat offal	Belize	Guyana, Haiti, Jamaica
4	Dairy produce, eggs, honey	Trinidad & Tobago	Dominica, Saint Lucia, Guyana
12	Oil seeds, misc. grains	Guyana	India, USA, Canada
5	Products of animal origin not elsewhere specified	Trinidad & Tobago, Jamaica	Saint Lucia, Grenada
6	Live trees and other plants	Jamaica, Guyana	Canada, USA, Netherlands
13	Lac, gums, resins	Belize	USA, India, Guatemala

Source: ITC Trade MAP, *Trade statistics for international business development*. Available at <https://www.trademap.org/> (accessed July 2024)

Note: Agrifood products refer to all items covered by HS codes 01–22.

In 2023, CARICOM's agrifood exports were dominated by beverages, spirits and vinegar (HS 22), reaching over USD 520 million, largely driven by Jamaica and Trinidad & Tobago. This was followed by strong performances in cereals (HS 10) from Guyana (USD 271 million) and fish and crustaceans (HS 03) from Suriname and Trinidad & Tobago (USD 228 million). Traditional sectors

such as sugar (HS 17) also remained vital (USD 140 million), alongside fruits and vegetables (HS 07 and 08), with combined exports over USD 129 million. These products are mainly exported to the USA, UK, Netherlands, and other regional partners within CARICOM. Less prominent but still relevant are exports of live animals (HS 01), meat (HS 02), dairy (HS 04), and coffee and spices (HS 09). These figures point to CARICOM's comparative strength in both raw and semi-processed agrifood goods. However, the dominance of a few destinations, especially the United States and intraregional markets, suggests the need for greater diversification in trade relationships to reduce economic vulnerability and increase resilience to global shocks.

While CARICOM's agrifood exports show resilience and growth in key sectors, the region remains exposed to external shocks due to its high product and market concentration. A strategic shift toward diversification—both in products and destinations—is essential to strengthen food systems and economic stability. Policymakers should prioritize investment in value addition, innovation, and market access to fully unlock the agrifood sector's potential in the Caribbean.

2. Agrifood imports by CARICOM

From 2019 to 2023, CARICOM showed an increasing reliance on agrifood imports, as reflected in a steady rise in the value across all agrifood categories. The total value of its agrifood imports was \$5.2 billion in 2019, increasing to \$6.8 billion in 2022, and peaking at \$7.1 billion in 2023 (table 5), reflecting global market dynamics and disruptions such as the COVID-19 pandemic.



Table 5**CARICOM's agrifood imports rose steadily between 2019 and 2023, driven by rising demand for cereals, beverages and processed foods, 2019–2023**

(Thousands of United States dollars)

HS Code	Product category	2019	2020	2021	2022	2023
TOTAL	All agrifood products (01-22)	5 221 692	4 966 365	5 818 461	6 774 612	7 100 269
10	Cereals	608 508	661 118	749 639	879 423	898 474
22	Beverages, spirits, and vinegar	545 076	440 048	574 169	730 700	754 671
21	Miscellaneous edible preparations	547 893	515 105	597 961	655 548	695 516
19	Preparations of cereals, flour, starch, or milk; pastrycooks' products	427 626	418 593	518 202	563 431	654 833
02	Meat and edible meat offal	501 613	447 057	578 459	663 990	633 399
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere classified	466 976	460 793	467 833	545 175	563 493
15	Animal, vegetable, or microbial fats and oils and their cleavage products; prepared edible fats	313 147	359 947	447 506	561 835	497 725
17	Sugars and sugar confectionery	263 108	283 555	322 324	360 245	483 167
20	Preparations of vegetables, fruit, nuts, or other parts of plants	310 447	266 494	292 831	372 617	407 904
07	Edible vegetables and certain roots and tubers	247 815	245 402	269 01	270 468	319 074
16	Preparations of meat, fish, crustaceans, mollusks, or other aquatic invertebrates	247 307	233 284	276 382	308 472	298 033
11	Products of the milling industry; malt; starches; inulin; wheat gluten	179 852	172 265	164 749	229 736	235 149
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	202 947	159 849	184 792	231 913	222 454
08	Edible fruit and nuts; peel of citrus fruit or melons	141 195	117 22	151 172	148 044	164 786
18	Cocoa and cocoa preparations	59 163	53 919	64 419	73 088	81 962
09	Coffee, tea, maté, and spices	50 512	45 445	57 501	64 387	75 180
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds, and fruit	57 536	57 783	67 834	73 383	69 133
06	Live trees and other plants; bulbs, roots, and the like	22 724	11 693	20 388	24 553	27 289
01	Live animals	18 677	10 258	6 997	8 850	10 119
13	Lac; gums, resins, and other vegetable saps and extracts	3 972	4 322	3 968	4 969	5 049
05	Products of animal origin, not elsewhere specified	4 185	1 762	2 047	3 465	2 233
14	Vegetable planting materials; vegetable products not elsewhere specified	1 413	193	305	320	626

Source: ITC Trade MAP, *Trade statistics for international business development*. Available at <https://www.trademap.org> (accessed July 2024)

Note: Agrifood products refer to all items covered by HS codes 01–22.

Cereals were among the principal imports, rising from \$608 million in 2019 to \$898 million in 2023. Haiti, Jamaica, Trinidad and Tobago, Guyana and Barbados were the major importers, primarily of rice. Beverages, spirits and vinegar peaked at \$754 million in 2023, driven by imports of undenatured ethyl alcohol by Jamaica, the Bahamas and Guyana.

Imports of meat and edible meat offal grew from \$501 million in 2019 to \$633 million in 2023, with frozen bovine meat leading. The Bahamas, Haiti and Jamaica were the main importers. Preparations of cereals, flour, starch and milk reached \$654 million in 2023, led by bread, pastries and baked goods.

Miscellaneous edible preparations rose to \$696 million in 2023, with Jamaica and Trinidad and Tobago as the major importers. Dairy produce, eggs and honey remained stable at \$563 million in 2023, the main import item being cheese.

Imports of fats and oils (palm oil being the dominant product) peaked at \$561 million in 2022, but dropped to \$498 million in 2023. Sugars and confectionery climbed to \$483 million in 2023, led by Haiti and Jamaica.

Preparations of vegetables, fruits and nuts reached \$408 million in 2023, while edible vegetables and tubers rose to \$319 million. Demand for both these categories was stable in Jamaica, Trinidad and Tobago, and Barbados. Preparations of meat, fish and crustaceans totalled \$298 million in 2023, down from \$308 million in 2022.

CARICOM's reliance on agrifood imports underscores the need to reduce its dependence on them by supporting local production for food security. Targeting key importers like Jamaica, Trinidad and Tobago, and Barbados is vital for improving the trade balance. However, efforts must remain realistic about local production capacity and capabilities, including constraints such as limited land availability and water scarcity.

Imported agrifood products (by six-digit HS codes)

In 2023, CARICOM imported significant volumes of key agrifood products. Identified by six-digit HS codes, the largest import was semi-milled or wholly milled rice (HS Code 100630), valued at \$414.75 million, primarily by Haiti, Jamaica, and Trinidad and Tobago, and imported mainly from the United States, Pakistan and Guyana. Food preparations, not elsewhere specified (HS Code 210690), supporting the production of beverages and ice cream, reached \$286.83 million, mainly from the United States and Europe.

Frozen chicken cuts (HS Code 020714) totalled \$267.40 million, led by Haiti, the Bahamas, and Trinidad and Tobago. Wheat and meslin (HS Code 100199), essential for bread production, totalled \$238.14 million. Palm oil (HS Code 151190) imports, used for cooking and food processing, were valued at \$162.20 million.

Other notable imports included baked goods (HS Code 190590) at \$141.45 million, sugar (HS Code 170199) at \$140.09 million, maize (HS Code 100590) at \$133.77 million, malt extract (HS Code 190190) at \$116.53 million, and frozen beef (HS Code 020230) at \$110.98 million, all critical to the region's food supply.

3. The project's target countries

CARICOM countries share common food security needs, though each member faces its own unique challenges. For instance, Barbados, a prominent regional player, imports food items, including maize, cheese and sweet biscuits. Its reliance on these items highlights the challenges of ensuring food security in small islands with limited agriculture, and underscores the need for finding innovative solutions to reduce external dependence (World Trade Organization, 2023).

Guyana, despite being a major CARICOM exporter, nevertheless imports products like wheat and frozen meat. Examining its export-import balance sheds light on food security dynamics. Haiti, which depends on rice, wheat and palm oil imports, faces acute food security challenges due to its fragile economy and frequent natural disasters, making it a critical case for study.



Meanwhile, while Jamaica is heavily dependent on imports of products such as rice, wheat, frozen meat and sauces, its role as a regional hub for food imports makes it central to the food security framework of the region. Trinidad and Tobago, strategically located and with a relatively advanced infrastructure, significantly influences regional food security. As a major importer of wheat, meat and processed foods, it has a direct impact on smaller neighbouring islands.

4. Food supply chains in the Caribbean region

The Caribbean food supply chains are shaped by specific geographic, economic and environmental conditions. They encompass interconnected activities and actors, ensuring food availability from production to consumption (table 6).

(a) Main actors in the Caribbean food supply chains

Table 6

Diverse actors contribute to the Caribbean food supply chain, from imported inputs to regional consumers and export markets

Inputs	Production	Packing and cold storage	Processing	Distribution and marketing	Consumers and exporters
Seeds, fertilizers, agrochemicals (herbicides, fungicides, pesticides), farm equipment , irrigation equipment. The vast majority imported .	Small-scale farmers producing crops like rice, bananas, sugarcane, crucial for local food security and employment. Commercial farmers focusing on export-oriented cash crops like sugar, bananas, coffee, and cocoa. Fisherfolk involved in seafood production such as fish, shrimp, and lobster.	Exporter companies handling packing and cold storage to maintain quality for both local markets and export.	Agricultural processors convert raw materials into sugar, rum, and processed seafood. Food manufacturers package and process food items, extending shelf life.	Supermarkets and grocery stores , national distributors and regional wholesalers ensure products reach local and regional markets. Local markets and street vendors provide fresh produce directly to consumers.	Local consumers influence demand for staples like rice, beans, and plantains, driven by cultural and economic factors. The tourism sector drives high demand for diverse, high-quality food supplies. Agro-export companies specialize in exporting Caribbean produce to international markets, ensuring compliance with quality standards and regulations.

Logistics:

Local companies handle transportation and storage within Caribbean countries, ensuring products move efficiently from farms to markets.

Regional providers facilitate the movement of goods across countries and into international markets, supported by regional ports and shipping companies.

Standardization agencies:

CROSQ and national standards bodies ensure that Caribbean products meet international standards for quality, safety and competitiveness in global markets.

Investment:

Foreign and regional investments enhance commercial farming, processing and logistics, integrating Caribbean producers into global supply chains.

Caribbean food supply chains are shaped by the region's insular geography, small-scale production base, high dependence on imports, and vulnerability to climate change and external shocks. These supply chains involve a complex web of stakeholders—ranging from farmers and fisherfolk to processors, logistics providers, retailers, and regulatory institutions—who work

across national and regional levels to ensure that food is produced, moved, and made available to consumers efficiently and safely.

Primary production remains dual in structure, with a predominance of smallholder agriculture oriented toward domestic markets and household food security, alongside larger commercial operations linked to export markets. Fisheries and aquaculture are critical for food and nutrition security, especially in coastal communities, although the aquaculture sector remains relatively underdeveloped and uneven across countries.

The downstream segments of the supply chain, including food processing and manufacturing, contribute to value addition, income generation, and the reduction of food waste. However, the sector faces constraints related to scale, technology, and market access.

Transport, logistics, and storage systems are essential to the functioning of food supply chains, particularly in a region marked by geographic fragmentation and varying infrastructure capacity. Efficient logistics are key to reducing food losses, lowering prices, and improving access particularly for remote and food-insecure populations.

A strong institutional and regulatory framework supports the safe and efficient functioning of these food systems. The Caribbean Regional Organization for Standards and Quality (CROSQ)² plays its role in developing and harmonizing standards across CARICOM, ensuring that products meet international quality and regulatory requirements. Through collaboration with national standards bodies, CROSQ supports product certification, facilitates trade, and helps integrate Caribbean producers into global value chains.

Complementing this work, the Caribbean Agricultural Health and Food Safety Agency (CAHFSA) leads regional efforts to establish and implement harmonized agricultural health and food safety measures. This includes plant and animal health protocols, sanitary and phytosanitary (SPS) standards, and early warning systems for food safety risks—all critical for protecting consumers and meeting international export requirements.

The Inter-American Institute for Cooperation on Agriculture (IICA) Caribbean Office also contributes significantly by providing technical assistance for the adoption of Good Agricultural Practices (GAPs), enhancing national capacities to meet Codex Alimentarius standards, and strengthening institutional frameworks for food safety and trade facilitation.

These agencies—working in coordination with national ministries, producers, and private actors—are essential to improving the quality, safety, and competitiveness of regional food products, and to building more resilient and integrated Caribbean food systems.

(b) Lengths of Caribbean food supply chains

The lengths of Caribbean food supply chains significantly affect economic, social and food security dynamics. The journey from producers to consumers impacts costs, time and food availability. With diverse geographies, ranging from small SIDS to larger countries, such as Jamaica and Guyana, supply chains can be categorized as short local, long regional, and long international, as described below (see also table 7). However, in practice, hybrid models also exist, and their performance is influenced by infrastructural and regulatory bottlenecks.

Short local supply chains

Local supply chains involve small-scale farmers, fisherfolk, and vendors operating primarily within a single country or island. These chains are especially critical in Caribbean Small Island Developing States (SIDS), where food produced locally is transported short distances to reach local markets. For example, public markets in cities such as Kingston (Jamaica) and Castries

² CARICOM Regional Organisation for Standards and Quality (CROSQ). “Members.” CROSQ, [website.crosq.org](https://www.crosq.org). Accessed December 2024.



(Saint Lucia) serve as essential nodes, enabling direct sales of fresh produce, seafood, and traditional crops from local producers to consumers.

Local supply chains help reduce dependence on imported food, which in many Caribbean countries can account for over 70 percent of total consumption. By shortening the time between harvest and consumption, these systems improve food freshness, nutritional value, and reduce spoilage. This is particularly important in countries with limited cold storage facilities and high energy costs. This model also lowers the carbon footprint associated with long-distance transportation and supports food sovereignty, which is especially relevant for nations exposed to global supply chain disruptions, as seen during the COVID-19 pandemic (Mohammadi et al., 2022).

Supporting short supply chains contributes to rural development by creating stable markets for smallholders and preserving traditional agricultural practices, such as intercropping or agroecological methods adapted to local ecosystems. It also enables fisherfolk to retain more value from their catches through direct sales, reducing reliance on intermediaries.

These measures, in turn, strengthen the resilience of food systems, particularly in small islands with limited arable land, narrow production bases, and high dependence on food imports. For instance, when international shipping routes are disrupted, local supply chains can act as buffers to maintain basic food availability. Likewise, following hurricanes or floods, communities with active local markets and functioning storage networks can restore food access more quickly.

The simplified logistics of local supply chains, characterized by shorter distances, fewer intermediaries, and reduced customs or certification requirements, also make them less exposed to external market volatility such as spikes in global grain prices. They are also faster to recover after natural disasters. However, their effectiveness depends on basic infrastructure such as farm-to-market roads, storage facilities, and well-regulated market spaces (World Bank, 2024).

Long regional supply chains

Regional supply chains involve the movement of food products between Caribbean countries. These longer chains address the region's need for inter-island food distribution, allowing countries with surplus production to help mitigate shortages in other parts of the Caribbean. These chains enable countries with surplus capacity to supply others facing production constraints, thereby enhancing food availability, market integration and economic resilience. Examples of such flows include Guyana's export of rice to Trinidad and Tobago and the Eastern Caribbean, and Jamaica's bananas traded to Barbados. Other emerging regional trades include fresh produce from Saint Vincent and Dominica, fish and aquaculture products from Belize, and poultry or eggs from Suriname and Trinidad to neighbouring states.

These supply chains reflect a degree of specialisation among countries, shaped by agro-climatic conditions, scale, and historic market linkages. However, the scope for regional diversification remains limited due to persistent gaps in infrastructure and policy coordination. In addition, consumer preferences such as demand for imported processed foods or specific varieties not grown regionally, also constrain intra-CARICOM trade expansion.

Efficient operation of regional chains depends on maritime transport, port logistics, and harmonised regulatory frameworks. Despite CARICOM's integration efforts, inter-island shipping is irregular, costly and fragmented, often making it cheaper to export to the United States than to a neighbouring island. The limited presence of regional carriers and the absence of regular cold-chain-equipped vessels restrict the safe movement of perishable goods such as fish, vegetables, or dairy.

The region also faces significant non-tariff barriers, including heterogeneous sanitary and phytosanitary (SPS) requirements, delays in customs clearance, and uncoordinated standards enforcement. These constraints discourage trade in fresh and value-added agricultural products, disproportionately affecting small and medium producers.

Natural disasters further complicate regional supply chains. Hurricanes and tropical storms frequently damage critical infrastructure such as ports, access roads, storage facilities and communications systems, interrupting not only domestic distribution but also regional trade. For instance, following Hurricanes Irma and Maria (2017), intraregional food shipments to affected islands were delayed due to port closures and debris-blocked shipping lanes, highlighting the fragility of these linkages in the face of extreme weather events.

Another key constraint is the lack of cold chain infrastructure, particularly at secondary ports, which severely limits the region's ability to trade perishables such as fresh fish from Dominica or Saint Lucia to Barbados or Trinidad. The absence of consistent refrigeration undermines food safety, leads to high spoilage rates, and reduces competitiveness in both regional and international markets.

Improving long regional supply chains requires coordinated investments in maritime logistics, regional shipping services, and transport hubs equipped with modern cold storage and customs facilities. Additionally, harmonising SPS and food safety protocols through institutions like CAHFSA and CROSQ is essential to lower technical barriers and improve regulatory trust across CARICOM states.

These investments would not only enhance food security by facilitating the movement of nutritious, locally produced foods but also support regional production planning, build economies of scale, and reduce reliance on extra-regional imports.

Table 7
Food supply chain length shapes food security outcomes in the Caribbean, from local resilience to global vulnerability

Description	Key features	Impact on food security	Challenges
Short local supply chains			
Movement of food within one island or country, typically involving small-scale farmers, fisherfolk and local markets	- Supports local economies - Crucial for food security in SIDS - Minimizes transportation costs and time	- Ensures fresher, healthier food for local consumers - Supports food sovereignty and reduces reliance on imports	- Limited production capacity - Vulnerable to local disruptions (e.g. natural disasters)
Long regional supply chains			
Involves the transport of food between Caribbean countries to balance production and shortages across islands	- Relies on maritime routes - Guyana's rice, Jamaica's bananas, Trinidad's imports - Requires strong regional logistics	- Mitigates shortages - Enhances regional cooperation through trade	- Dependent on regional infrastructure - High shipping costs and complex regulatory environments
Long international supply chains			
Involves the import and export of food products to and from CARICOM to international markets (e.g. North America, Europe).	- Export crops like sugar, cocoa, coffee - Imports of staples not locally produced (e.g. wheat, corn)	- Diversifies food supply - Boosts export-driven economies	- Highly vulnerable to global market fluctuations - Delays due to distance, customs and global disruptions

Long international supply chains

The Caribbean's long international supply chains connect the region's agricultural and agro-processed goods to global markets, particularly in North America, Europe and, increasingly, emerging economies. These supply chains enable the export of high-value commodities such as cocoa, coffee, spices, rum, sugar, and tropical fruits, as well as the import of essential staples like wheat, corn, and dairy, which are not widely produced in the region.

Participation in global markets offers Caribbean producers the opportunity to access higher value segments, where prices may reflect factors such as organic certification, unique geographic origin, or premium quality. However, realising these opportunities depends on the ability to meet international standards, ensure consistent volume and quality, and comply with technical and sanitary and phytosanitary (SPS) regulations. Exporters often need to invest in certification schemes, traceability systems, and branding strategies to remain competitive.

Accessing these markets also involves developing long-term commercial relationships with international buyers, navigating complex logistics, and maintaining visibility through participation in trade fairs, online platforms, and overseas marketing campaigns. National trade promotion agencies and regional mechanisms, such as the Caribbean Export Development Agency, play a role in facilitating this access by supporting capacity building, market intelligence, and export readiness.

While these supply chains support economic diversification and foreign exchange earnings, particularly for rural producers and agri-processors, they are not without challenges. Maritime transport efficiency and port infrastructure are critical, as delays or insufficient cold storage can reduce the shelf life and marketability of perishable exports. Additionally, market entry costs, such as tariffs, certification fees, and shipping insurance, can be prohibitively high for small producers.

Global price volatility, shifting trade policies, and currency fluctuations can also affect the profitability of exports. For example, a sudden drop in international sugar prices or tightening EU market standards can undermine income streams for Caribbean exporters. Many producers are also constrained by limited access to market data, including trends, demand forecasts, and logistics information, which affects their ability to plan and respond proactively.

To strengthen their participation in international supply chains, Caribbean countries are investing in port infrastructure, digital logistics platforms, cold chain systems, and training for compliance with international standards. Strengthening data systems, improving access to market intelligence, and enhancing support services for small and medium exporters are also crucial steps for improving competitiveness and ensuring that more producers can benefit from global trade opportunities.

Impact on food security and economic stability

Overall, the length of supply chains in the Caribbean has a significant impact on the region's food security. Short, local chains enhance food sovereignty and reduce dependence on imports, while regional chains ensure that surplus production can fill gaps in other countries, balancing food availability across the region. Finally, international chains, while crucial for economic sustainability, tie the region's agricultural sector to global market fluctuations, creating both opportunities and risks.

To optimize these supply chains, Caribbean governments and regional organizations like CARICOM are focusing on improving transportation infrastructure, enhancing regional trade agreements and supporting local agricultural initiatives. This combined effort is helping to mitigate food insecurity, particularly in the face of global disruptions caused by events such as pandemics or extreme weather conditions.

The complexity of Caribbean supply chains reflects the geographical and economic diversity of the region. By fostering shorter, more efficient local supply chains and strengthening regional and international connections, the Caribbean can enhance food security, support local economies and secure a stable role in global agricultural markets.

5. Revealed comparative advantage for CARICOM's food exports: an analysis

The revealed comparative advantage (RCA)³ index measures a country's or region's relative advantage or disadvantage in exporting certain products compared to the world average. It helps identify the products in which the national economy has a competitive edge by comparing the proportion of that economy's exports in a specific category to the global proportion of exports in the same category.

Figure 1 presents the RCA index⁴ for different categories of agrifood products (HS codes 01 to 22) in CARICOM countries in 2023 in order to assess their international competitiveness, and the relative strengths and weaknesses of different product categories across the region. An RCA index greater than 1 indicates that the products or group of products have a comparative advantage. The figure shows varying degrees of competitiveness across the range of agrifood categories.

Some product categories, such as beverages, fish and sugar, emerge as more competitive, while others are struggling to establish a foothold in global markets. The variation in RCA values underscores the region's dependence on specific commodities for export, while also revealing gaps in competitiveness in other areas.

The category of beverages, spirits and vinegar (HS Code 22) stands out with the highest RCA index in 2023, reaching 2.48. This high level of competitiveness is largely driven by the export of rum and other alcoholic beverages, particularly from Jamaica and Barbados. The production and export of these goods have, historically, played a significant role in CARICOM's economic output, bolstered by robust demand from international markets, including the tourism sector.

For the category of fish, crustaceans, molluscs and other aquatic invertebrates (HS Code 03), the RCA index of 1.54 reflects the importance of the fishing industry to CARICOM economies, especially in countries such as Belize. The seafood industry exports a variety of products, including shrimp, lobster and reef fish, primarily to North America and Europe, where demand for sustainably sourced seafood is increasing. The region's competitiveness in this category is supported by access to established trade routes, investment in processing facilities, and compliance with international food safety standards such as HACCP. However, persistent constraints such as limited cold chain infrastructure and inconsistent application of SPS measures continue to hinder broader expansion.

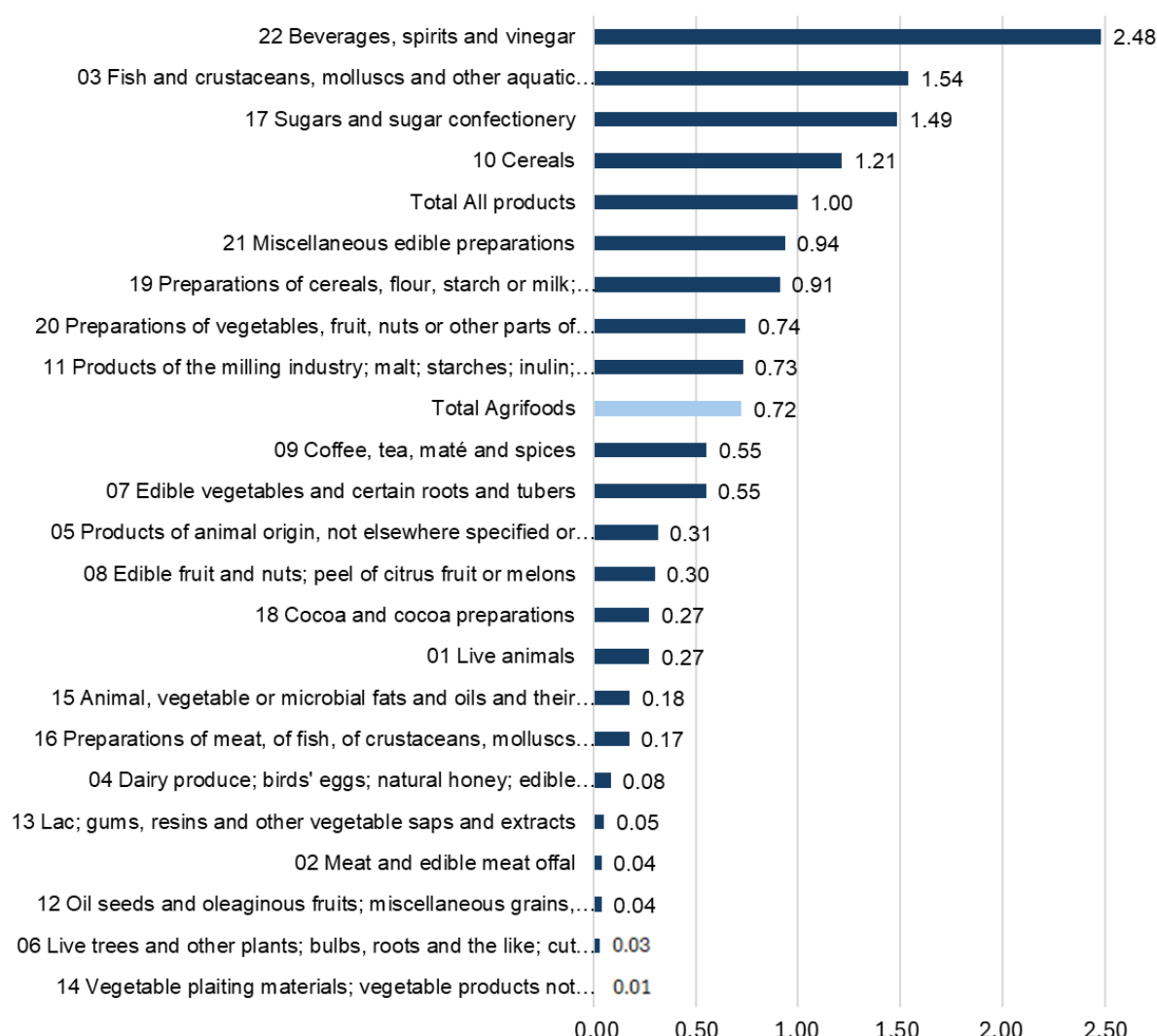
³ $RCA_i = (X_i/X_t) / (M_i/M_t)$ where X_i is the export value of food product HS code for the CARICOM; X_t is the total export value of all goods for the CARICOM; M_i is the world export value of food product HS code; M_t is the total world export value of all goods (See: Stellan R and Danna-Buitrago JP, December 2022 Which revealed comparative advantage index to choose? Theoretical and empirical considerations (Santiago, Chile, ECLAC, available at: <https://www.cepal.org/en/publications/48807-which-revealed-comparative-advantage-index-choose-theoretical-and-empirical>)³ For a more detailed explanation see Annex II in the Annex section.

⁴ See: <https://unctadstat.unctad.org/EN/RcaRadar.html>.



Figure 1

CARICOM shows strong comparative advantage in a few key agrifood exports, notably beverages, seafood and sugar, with limited strength in most categories, 2023
(RCA Index)



Source: UNCTAD secretariat calculations using United Nations COMTRADE data, (accessed July 2024)

Note: Agrifood categories refer to HS codes 01–22.

The sugar and sugar confectionery category maintains a competitive edge as well, registering an RCA of 1.49 in 2023. Sugar production continues to underpin export revenues, particularly in Guyana and Jamaica, highlighting its longstanding importance to their agricultural economies. However, the sector faces ongoing structural and market-related challenges, including declining global prices due to oversupply, the erosion of preferential trade arrangements such as the EU-ACP Sugar Protocol, rising production costs, and increased competition from large-scale producers like Brazil and India. Additionally, shifting consumer preferences and growing health concerns have led to reduced demand in key markets. These dynamics threaten the long-term profitability of the Caribbean sugar industry unless efforts are made to improve efficiency, adopt value-added processing, and explore alternative uses for sugarcane by-products.

Cereals also demonstrate a competitive RCA index, standing at 1.21 in 2023. This figure largely reflects Guyana's significant role in rice production, not only for intraregional exports within CARICOM, but also its exports to international markets. The prominence of cereals in the export mix suggests that this sector remains a reliable source of income and contributes to regional food security.

Despite strong performance in some sectors, several agrifood categories struggle to compete globally, as shown by their lower RCA indexes. Live animals had an RCA of 0.27 in 2023, likely due to small-scale farming and a focus on domestic use. Similarly, animal or vegetable fats and oils reported a low RCA of 0.18, reflecting limited regional production. Products of animal origin showed an RCA of 0.31, indicating their minor role in CARICOM's export portfolio due to low production and market demand.

The RCA index findings suggest that CARICOM's agrifood competitiveness remains concentrated in a few traditional sectors such as beverages, sugar, seafood, and rice. To broaden this export base, countries will need to address structural constraints such as low productivity, limited processing capacity, and fragmented supply chains. For instance, smallholders often lack access to financing or technology to scale operations, and border delays caused by non-harmonised SPS protocols impede timely exports. Investing in modern agri-logistics, digitising export documentation, and supporting the adoption of international quality certifications could enhance competitiveness in underperforming sectors such as processed foods, dairy, or fruits and vegetables. This more targeted strategy would allow CARICOM to retain its comparative advantages while developing new ones in response to changing global demand.

B. CARICOM trade policy

CARICOM has implemented several trade policies, including the following

Jagdeo Initiative on Agriculture (2005)

The Jagdeo Initiative identified key constraints to agricultural development in the Caribbean and proposed targeted actions to address them. It marked a turning point in placing agriculture back on the regional agenda as a driver of growth, food security, and rural development.

CARICOM Regional Food and Nutrition Security Policy (RFNSP) – 2010

The RFNSP was a foundational policy framework aimed at improving food availability, access, and nutritional outcomes across CARICOM member states. It promoted coordinated regional action to address food insecurity, with a strong focus on resilience and sustainable agriculture.

CARICOM's 25 by 2025 Initiative

This ambitious initiative was launched with the goal of reducing the region's food import bill by 25% by the year 2025. It prioritises increased local production, investment in agriculture, and the removal of trade barriers within the region. In light of ongoing challenges such as natural disasters, global trade disruptions, and infrastructural limitations, the initiative has recently been extended to 2030. This extension reflects CARICOM's continued commitment to strengthening regional food security and building a more sustainable and self-reliant agri-food system.

CARICOM Agri-Food Systems Strategy (CAFSS) – 2023

The CAFSS provides a comprehensive roadmap for transforming the region's agri-food systems in line with sustainability, resilience, and economic competitiveness. It builds on previous efforts and aligns with global development goals, integrating climate-smart practices and inclusive value chain development.

Common external tariff (CET).⁵

The CET is designed to harmonize import duties on goods entering the region from non-member States. The tariff structure imposes higher tariffs on goods that compete with regional products, while lower tariffs are applied to essential goods and raw materials. This protectionist approach is intended to safeguard local businesses against external competition and promote regional production. However, some requests for CET suspensions have raised concerns among stakeholders, as they can undermine the system's credibility and create uncertainty for regional producers.

⁵ Revised Treaty of Chaguaramas Article 82: Establishment of Common External Tariff, and Article 83: Operation of the Common External Tariff (caricom.org)



The classification of goods under the CET is based on the World Customs Organization's Harmonized System (HS) at the eight-digit level, ensuring standardization and consistency in tariff application. These products are categorized into two main groups: primary and intermediate products, and final goods ready for consumer use. Each category is further divided into competing and non-competing goods. Competing goods are those for which regional production meets at least 75 per cent of regional demand, while non-competing goods fall below this threshold, and face different tariff considerations. Certain goods, such as agricultural and agro-industrial products, goods competitive in export markets, as well as those considered sensitive, receive special treatment in the CET structure through exceptions, preferential tariffs, tariff protection, or specific regimes. Such goods typically encompass essential agricultural products, strategic commodities, and industries vital for employment or economic stability. The regulatory measures on such goods aim to safeguard local production and supply chains.

CARICOM's rules of origin⁶ determine the national source of a product and are crucial for regulating market access, influencing investment decisions and shaping supply chains. These rules specify which goods are considered to be of Caribbean origin: they may be wholly produced or undergo substantial transformation within the region.

The CET and rules of origin are designed to foster regional economic integration and, as noted earlier, protect local industries in member countries. While CARICOM aims to create a cohesive and competitive economic space, continuous improvements and harmonization efforts are necessary to eliminate inconsistencies in their application across member States. Major challenges include developing an agro-industrial policy that emphasizes processing over primary production to generate higher added value, supporting the full, free circulation of agricultural goods within CARICOM, and harmonizing or eliminating specific lists that currently allow CET suspensions or variable rates (ECLAC, 2024).

Despite the implementation of the CET, CARICOM member States sometimes apply additional trade charges, such as customs surcharges, stamp duties and discriminatory consumption taxes. These additional charges can impact both non-CARICOM and intra-CARICOM imports, creating a complex tariff landscape. Non-tariff barriers, such as quotas and import licensing requirements, are also used by some member countries to further regulate trade. For example, while some CARICOM-originating goods enjoy duty-free status, they are still subject to other fees such as environmental surcharges, customs service charges, excise taxes and value added taxes. These levies can significantly increase the final prices of imported goods, making it difficult for businesses to predict costs accurately and complicating cross-border trade.⁷

Some member States also employ non-tariff barriers such as quotas and import licensing requirements. These measures further regulate trade and can act as protectionist tools, restricting the entry of certain goods and sometimes even affecting goods produced within CARICOM (Avila and Remy, 2021). While these barriers aim to protect domestic industries, they often conflict with the free trade principles the CET was designed to promote.

Trade liberalization policies within CARICOM have aimed to reduce these barriers and facilitate freer movement of goods among member States. However, the uneven application of these policies across different countries can lead to inconsistencies and challenges in trade practices. Additionally, economic diversity among CARICOM member States presents unique challenges, as the States differ in their priorities and capacities for implementing trade policies. Consequently, establishing a fully integrated and uniform trade policy across the region remains an ongoing effort. Although trade harmonization and liberalization have been recognized as essential goals for many years, substantial barriers persist. Achieving these objectives will require sustained commitment and enhanced coordination among the CARICOM members. Continued efforts to align and liberalize trade are critical for fostering a more integrated and efficient regional market, which in turn will strengthen food security and economic resilience across the Caribbean (Inter-American Institute for Cooperation on Agriculture 2018).

⁶ Revised Treaty of Chaguaramas, Article 84: Community Rules of Origin (caricom.org)

⁷ CARICOM Trade Agreement, 2023 (Dominica Customs & Excise Division), available at <https://customs.gov.dm/procedure/caricom-trade-agreement>

C. Regional and bilateral trade agreements

CARICOM trade agreements are a useful means of promoting economic integration and cooperation among Caribbean countries. They aim to enhance regional trade, reduce barriers and support the free movement of goods, services and capital. They also foster collective development, strengthen regional resilience, and create opportunities for member States to compete more effectively in global markets. The existing agreements are described below.

Caribbean Community and Common Market

The Treaty of Chaguaramas established CARICOM to advance regional integration and cooperation in economic, social and cultural spheres. It promotes the free movement of goods, services, labour and capital, and fosters collective growth and resilience. It coordinates policies in sectors such as agriculture, education and health to enhance regional solidarity and economic stability.

Although not explicitly stated, food security is central, highlighted through the Treaty's focus on efficiency, sustainability and improving living standards. Article 56(b) outlines goals such as enhancing income, employment and food security, as well as poverty reduction. Article 57 addresses agricultural productivity, diversification and support for small-scale farmers and fisherfolk. Article 6(c) emphasizes sustainable development, while Article 78 and others focus on trade liberalization and external policy coordination to boost intraregional and global trade, while also ensuring efficient food distribution within CARICOM.

CARICOM Single Market and Economy (CSME)

The CSME was designed to create a unified economic space among CARICOM Member States by facilitating the free movement of goods, services, capital and people, while also harmonising economic and trade policies. It aims to strengthen the region's competitiveness, encourage investment, and support sustainable development through deeper integration of markets and productive sectors, including agriculture.

Importantly, the CSME also provides a platform for coordinated responses to shared challenges such as food insecurity, climate vulnerability, and economic shocks, making it a relevant tool for building regional resilience.

European Union-CARIFORUM Economic Partnership Agreement

Signed in 2008, the European Union-CARIFORUM Economic Partnership Agreement (EPA) promotes sustainable development and poverty reduction while fostering the integration of CARIFORUM member States into the global economy. It supports trade liberalization, regional integration and economic cooperation, prioritizing sustainable resource management and boosting competitiveness in agriculture and fisheries.

Article 1 defines poverty reduction as the EPA's primary goal, achieved through sustainable trade partnerships. Article 3 incorporates sustainable development across the partnership by paying due consideration to social and environmental factors. Chapter 5 highlights food security as essential for poverty eradication. Article 37 focuses on maximizing fisheries for food security, while Article 40 allows CARIFORUM member States to secure essential food supplies and protect food security in the context of trade liberalization.

CARIFORUM-United Kingdom Economic Partnership Agreement

Signed in 2019 following the United Kingdom's departure from the European Union, the UK-CARIFORUM Economic Partnership Agreement ensures trade continuity by mirroring the European Union-CARIFORUM EPA. It maintains tariff-free access to the United Kingdom market, facilitates market access, supports sustainable development and promotes regional investment. By preserving favourable trading terms, it aims to drive economic growth, strengthen regional integration and foster resilience in the Caribbean in the context of post-Brexit trade dynamics.



Global System of Trade Preferences among Developing Countries

Signed on 13 April 1988 under the United Nations Trade and Development framework, the Global System of Trade Preferences among Developing Countries (GSTP) aims to boost these countries' trade through preferential tariff reductions. Guyana and Trinidad and Tobago are among the signatories.



Chapter II

Triggers of Food Insecurity in the Caribbean Region



Chapter



Triggers of food insecurity in the Caribbean Region

Food insecurity affects nearly 60 per cent of the population, with disparities across countries and population groups. It reflects structural constraints, high import dependence and exposure to external shocks. Limited productivity, weak infrastructure and rising food costs continue to affect access to adequate nutrition.

Food security trends in the Caribbean have been reshaped by the COVID-19 pandemic, the climate crisis, the Ukraine conflict, economic downturns and rising food prices. These challenges add to long-standing vulnerabilities rooted in colonial antecedents and structural adjustment programmes, which have historically conditioned the region to rely heavily on external sources for much of the food it consumes. Despite some progress, achieving Sustainable Development Goal 2 (SDG 2) remains elusive, with hunger and food insecurity indicators surging, especially in Haiti, where political unrest and natural disasters worsened the crisis.

Food insecurity remains a critical challenge for CARICOM countries, driven by factors such as climate change, economic volatility, trade dependence and weak agricultural sectors. This chapter explores domestic and external drivers of food insecurity, focusing on food accessibility, agricultural output and import reliance, to understand the region's many challenges.

Food insecurity

Food insecurity arises when individuals lack reliable access to safe and nutritious food for a healthy life. It stems from factors such as food scarcity, financial limitations and barriers to adequate nourishment. Its intensity ranges from mild uncertainty about food access to severe cases involving prolonged periods without food. It is also influenced by broader systemic factors, including climate, particularly extreme weather events, and economic shocks, which can disrupt food availability, access, and stability over time.

The Food and Agriculture Organization of the United Nations (FAO) uses the Food Insecurity Experience Scale (FIES)⁸ to assess and categorize food insecurity levels (table 8).

⁸ FAO, *Voices of the Hungry*, at <https://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

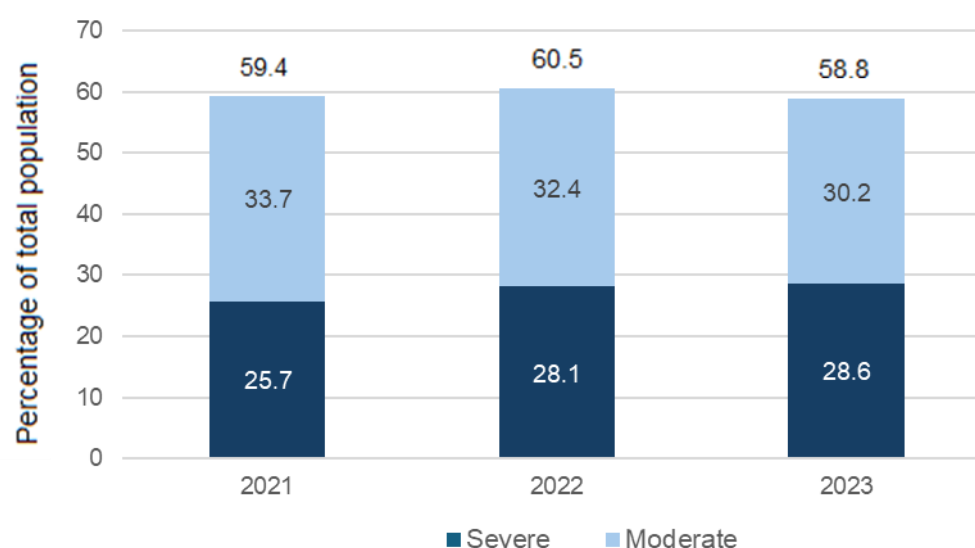
Table 8**Food insecurity progresses from uncertainty and poor diet to hunger and prolonged deprivation**

Food security	Mild food insecurity	Moderate food insecurity	Severe food insecurity
- Reliable access to sufficient, nutritious food - No concerns about obtaining food	- Uncertainty about the ability to consistently obtain food - Minor compromises in food quality or variety	- Reduced food quality and quantity - Skipping meals occasionally or running out of food periodically	- No food for a day or more - Frequently running out of food, and going without meals at times

Source: UNCTAD secretariat, based on the FAO's Food Insecurity Experience Scale

Food insecurity in CARICOM countries: An overview

Food insecurity affects around 60 per cent of CARICOM's population, with Haiti facing an exceptionally severe crisis. From 2021 to 2023, moderate and severe food insecurity remained high, slightly improving to 58.8 per cent of the population in 2023: 28.6 per cent severe and 30.2 per cent moderate (figure 2). These figures indicate that food insecurity is a widespread regional issue.

Figure 2**Food insecurity levels remained persistently high across CARICOM, affecting nearly 60% of the population, 2021–2023 (percentage)**

Source: FAOSTAT Food Security Indicators, at <https://www.fao.org/faostat/en/#data/FS> (accessed September 2024).

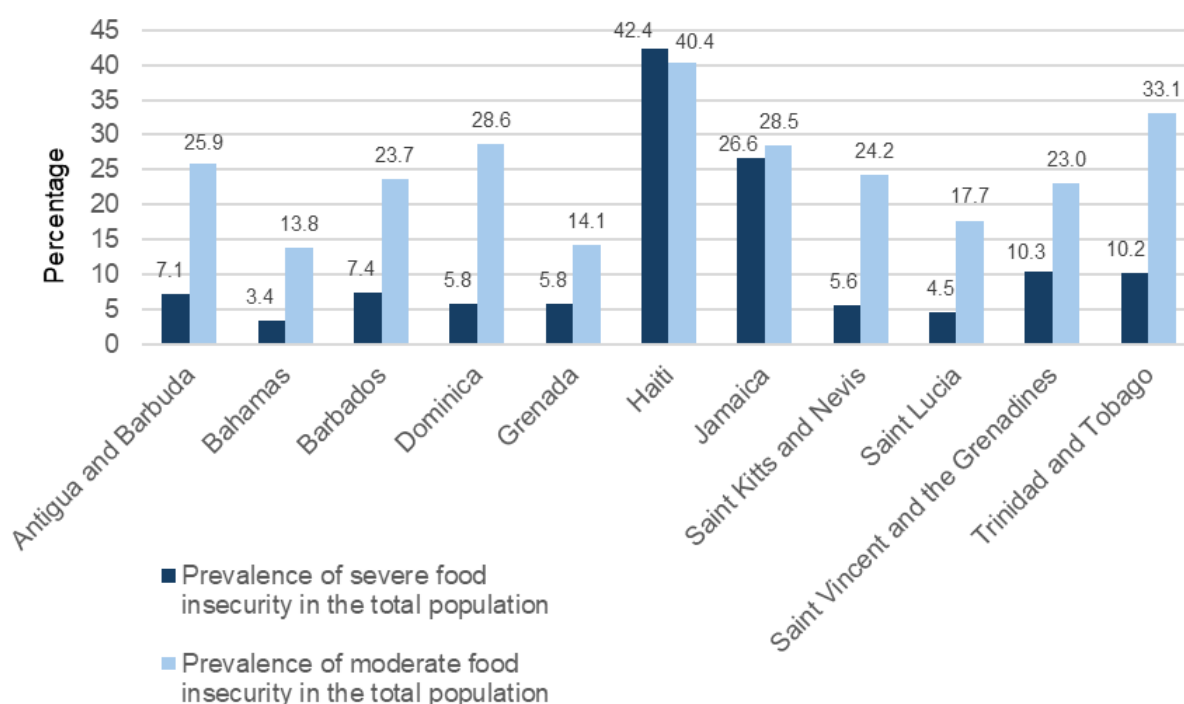
Country-specific data highlight disparities in food insecurity across the CARICOM region (figure 3). Haiti remains the worst affected, with 42.4 per cent of its population experiencing severe food insecurity and an additional 40.4 per cent facing moderate levels, leaving over 80 per cent of Haitians food insecure. This crisis is driven by political instability, frequent natural disasters and economic challenges. Jamaica also reports high levels, with 26.6 per cent of its population facing severe food insecurity and 28.5 per cent moderate, thus impacting over half the population. Trinidad and Tobago follows, with 10.2 per cent experiencing severe and 33.1 per cent moderate food insecurity, while the respective figures for Saint Kitts and Nevis are 5.6 per cent and 24.2 per cent. Saint Vincent and the Grenadines and Saint Lucia report relatively lower levels of food insecurity, with 10.3 per cent and 4.5 per cent severe food insecurity, respectively.

In contrast, countries like Antigua and Barbuda, the Bahamas, Barbados, Dominica and Grenada report less than 10 per cent severe food insecurity, with moderate levels ranging between 3.4 per cent and 25.9 per cent. Haiti's large population and extreme crisis skew the regional averages, inflating the perception of widespread food insecurity. Despite some improvement observed regionally in 2023, food insecurity remains a persistent challenge in several CARICOM countries, particularly in Haiti.

Figure 3

Severe and moderate food insecurity affect CARICOM countries unequally, with Haiti and Jamaica among the most impacted, 3-year average (2021-2023)

(Percentage)



Source: FAOSTAT, Food Security Indicators, at <https://www.fao.org/faostat/en/#data/FS> (accessed September 2024)

Note: Only those countries are shown for which data were available.

Gender disparity in food insecurity

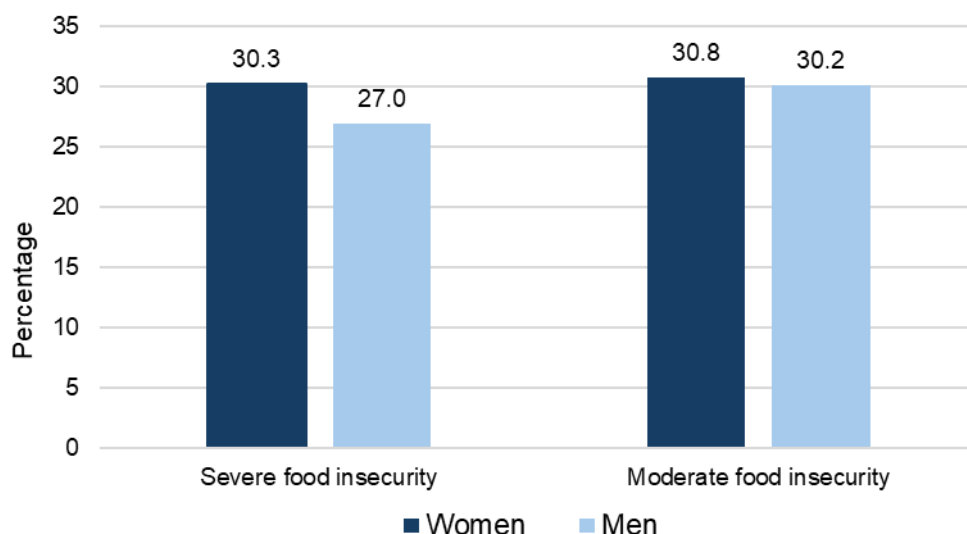
In 2023, gender disparities in food insecurity persisted in the Caribbean region, with women more severely affected than men. Severe food insecurity impacted 30.3 per cent of women compared with 27 per cent of men (figure 4). For moderate food insecurity, rates were nearly equal, affecting 30.8 per cent of women and 30.2 per cent of men.

This disparity is rooted in structural inequalities. Women's predominant role in care-giving often limits their economic participation. Additionally, they have less access to financial resources, land, employment opportunities and social support systems, making them more vulnerable to economic shocks and food shortages.

Addressing these inequalities requires gender-sensitive policies aimed at improving women's access to economic opportunities, social protection programmes, and food resources. Tackling these disparities is essential for achieving food security and ensuring equitable access to resources for both men and women in the Caribbean region.

Figure 4**Gender disparities persist in food insecurity across CARICOM, with women more affected by severe hunger, 2023**

(Percentage of population)



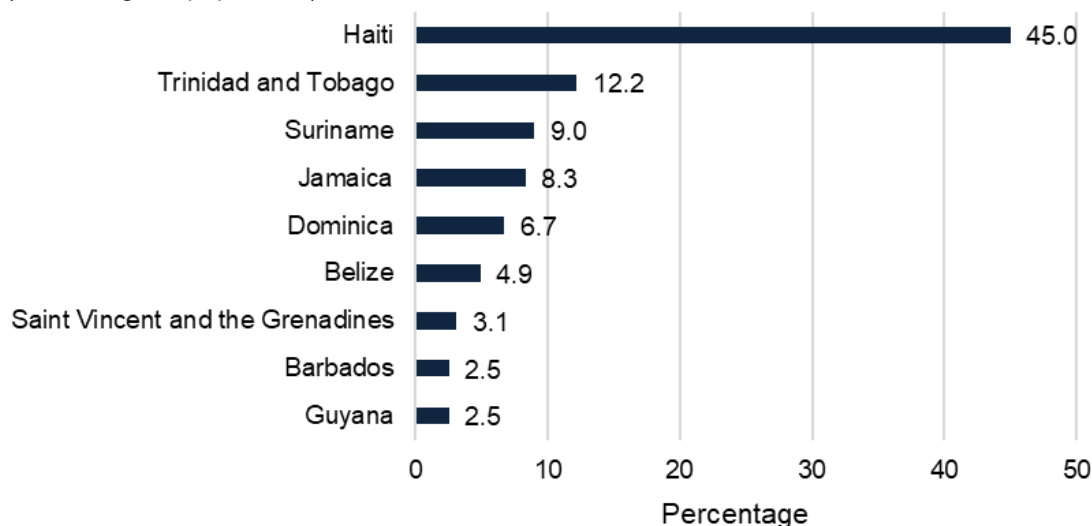
Source: FAOSTAT Food Security Indicators.

Prevalence of undernourishment

The prevalence of undernourishment (PoU) indicator, as outlined by the Sustainable Development Goals Indicators data portal,⁹ estimates the proportion of the population whose food intake fails to meet minimum dietary energy requirements. The increase in PoU in the Caribbean suggests worsening food insecurity, likely driven by factors such as climate change, economic instability, rising food prices and the long-term impacts of the COVID-19 pandemic, which disrupted global food supply chains.

Figure 5**Undernourishment affects CARICOM countries unevenly, with Haiti facing a critical situation, 2021**

(Percentage of population)



Source: World Bank, World Development Indicators database

⁹ SDG Indicator 2.1.1 Prevalence of Undernourishment (PoU), at <https://www.unsdglearn.org/courses/sdg-indicator-2-1-1-prevalence-of-undernourishment-pou-2/>

Global undernourishment remains persistently high, with 713–757 million people affected in 2023 (FAO et al., 2024), including 7.7 million in the CARICOM region. This highlights the

urgent need for action. Haiti exemplifies extreme vulnerability, with a 45 per cent rate of undernourishment (figure 5), driven by political instability, economic struggles and natural disasters. Other countries, such as Trinidad and Tobago (12.2 per cent), Suriname (9 per cent), Jamaica (8.3 per cent) and Dominica (6.7 per cent) display lower levels of undernourishment, but this nevertheless remains a concern.

Haiti's extreme situation underscores the importance of building resilience and self-sufficient food systems across the CARICOM region. It will require CARICOM countries to strengthen local food production and reduce their dependence on imports. Investments in sustainable agriculture, climate resilience and the provision of social safety nets are essential. Regional cooperation is also critical to improving food distribution and countering global price fluctuations.

Haiti's challenges and the growing rate of undernourishment in the Caribbean reflect the broader global trend of rising food insecurity, as highlighted in the World Food Programme's *Global Report on Food Crises, 2024*. Addressing these challenges and moving closer to (SDG 2.1, i.e. ending hunger and ensuring access by all people by 2030) necessitate coordinated efforts, innovative food systems and policies that give priority to vulnerable populations.¹⁰

A. Causes of food insecurity in the region

Food insecurity in the Caribbean is a multifaceted issue driven by a combination of domestic and external factors. The region's reliance on food imports, limited agricultural productivity and vulnerability to climate change exacerbate this situation. While many CARICOM countries are taking steps to overcome these challenges, global economic pressures, particularly post-COVID-19, have worsened food access and affordability for a large proportion of the population. The increasing cost of a healthy diet, coupled with rising food prices, underscores the urgent need for fostering sustainable agricultural practices and policy interventions. Below, the domestic and external causes that contribute to the growing food insecurity in CARICOM are explored in depth, based on both production and market-driven dynamics.

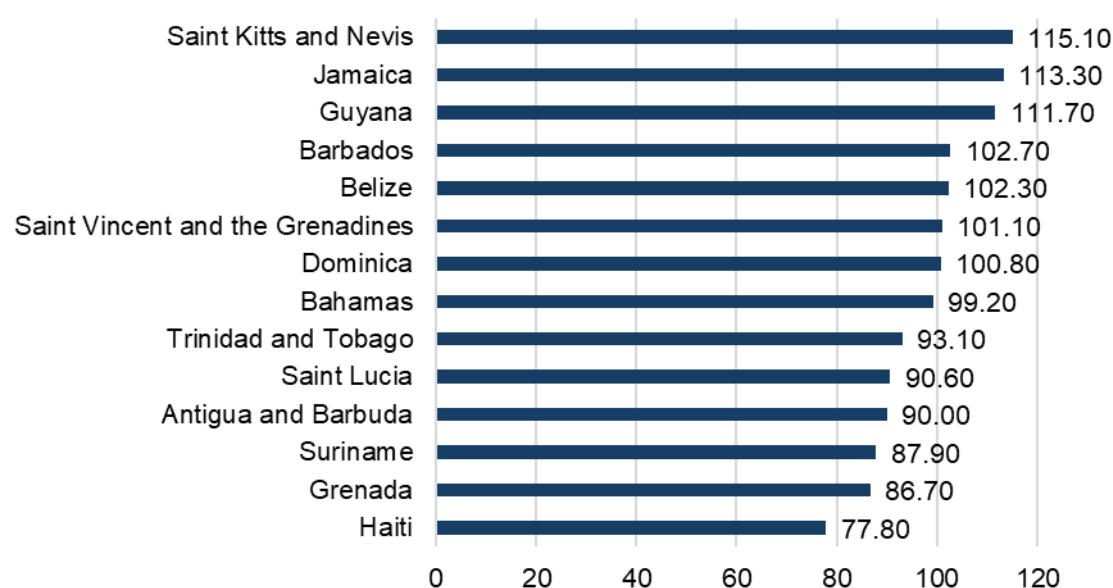
1. Domestic causes of food insecurity

The World Bank's Food Production Index (FPI) 2014–2016¹¹ measures the relative level of food production in comparison to a base period. It tracks the aggregate volume of food produced, focusing on edible crops that contribute to a country's food supply.

In 2022, CARICOM countries exhibited mixed performance in food production. Saint Kitts and Nevis, Jamaica and Guyana outperformed other members, with FPIs exceeding 110, while Barbados, Belize, and Saint Vincent and the Grenadines scored around 100, showing stable production levels but no significant growth (figure 6). On the other hand, countries like Dominica, Bahamas, Suriname, and Trinidad and Tobago recorded FPIs below 100, pointing to a decline in food production. Haiti, with the lowest FPI, suffered from severe food insecurity due to ongoing political instability, poverty and natural disasters. Thus, overall, the FPI highlights disparities in food production across the region.

¹⁰ World Bank, 2024, *Food Security Update*, at [Food-Security-Update-CIX-October-18-2024.pdf](https://www.worldbank.org/publications/fsu/2024-10-18): 10.

¹¹ World Bank's Food Production Index (FPI) 2014–2016, at <https://databank.worldbank.org/metadataglossary/world-development-indicators/series/AG.PRD.FOOD.XD>.

Figure 6**Several CARICOM countries increased food production, while others fell behind, 2022**

Source: World Bank Food Production Index (2014–2016 = 100)

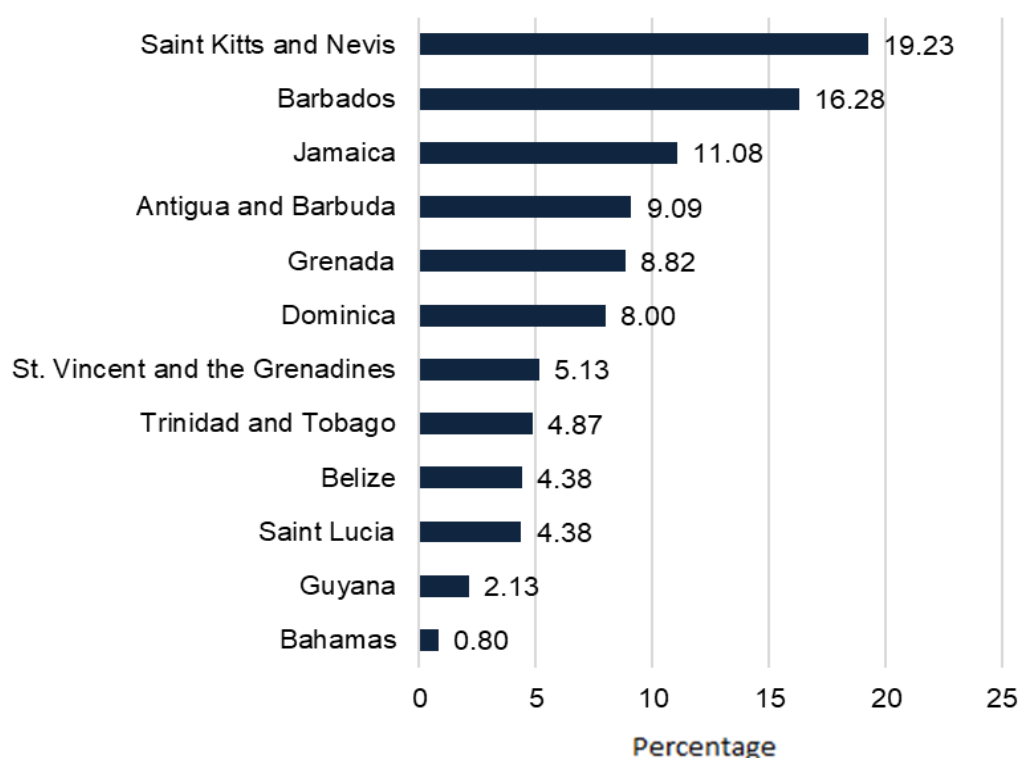
Use of land, limited agricultural productivity and rural isolation

Agricultural productivity in the CARICOM region is severely hindered by factors such as limited land, outdated technologies and adverse climatic conditions. Small-scale farming dominates, but many farmers lack modern technologies, irrigation and financing, which limit their productivity. Land availability and country size also influence output.

Land fragmentation in small islands such as Barbados, and Saint Kitts and Nevis is an additional impediment that increases their dependence on food imports. As shown in figure 7 while the percentage of arable land is relatively high in Saint Kitts and Nevis (19.23 per cent) and Barbados (16.28 per cent), they have small territories, while Guyana, with 2.13 per cent arable land, has a much larger land area. Soil quality varies: sandy soils in the Bahamas hinder cultivation, whereas Saint Lucia's volcanic soils enhance productivity. These factors affect food production and import reliance.

Figure 7**Most CARICOM countries have limited arable land, constraining local food production, 2022**

(Percentage)



Source: World Bank (Arable land as a percentage of land area) based on FAO data, at <https://data.worldbank.org/indicator/AG.LND.ARBL.ZS> (accessed September 2024).

Rural isolation adds to the many challenges, as it limits farmers' access to markets and services, increases transportation costs that raise food prices and reduces food availability in remote areas. In addition, urbanization in Trinidad and Tobago, and Jamaica has converted fertile land into housing, further reducing local food production and increasing import dependence, thereby deepening regional food insecurity even further.

Economic constraints and challenges to policy implementation

CARICOM countries face economic barriers such as high poverty, public debt and unemployment, which exacerbate food insecurity. Limited government funds for social programmes, such as agricultural subsidies and food assistance, leave vulnerable populations the most affected. Haiti exemplifies this crisis, with nearly 60 per cent of its population being food insecure.

Moreover, while many countries have developed food security strategies, challenges to policy implementation often arise. Weak governance and limited investment in modernizing agricultural practices impede progress. For instance, Barbados is struggling to diversify its agriculture, while successes in Guyana and Jamaica remain localized, thus limiting their regional impact on food security.

Nutritional transition and health impacts

The shift towards imported processed foods in the region has adversely affected the nutritional quality of diets, leading to a rise in obesity and malnutrition. Many of these imported foods are high in salt, sugar, and unhealthy fats, which has been directly linked to the increase in non-communicable diseases (NCDs) such as diabetes, hypertension, and cardiovascular conditions across Caribbean countries. Low-income populations often opt for cheaper, calorie-dense foods that lack essential nutrients, which exacerbates health problems. In Trinidad and Tobago, for

example, this dietary shift has resulted in increasing rates of non-communicable diseases, placing a further strain on health-care systems already burdened by widespread malnutrition. Deaths due to NCDs are disproportionately high in the Caribbean,¹² contributing significantly to national health care burdens. This nutritional transition represents a growing challenge for CARICOM countries as they strive to improve food security while grappling with the health consequences of poor dietary habits.

2 Trade-related causes of food insecurity

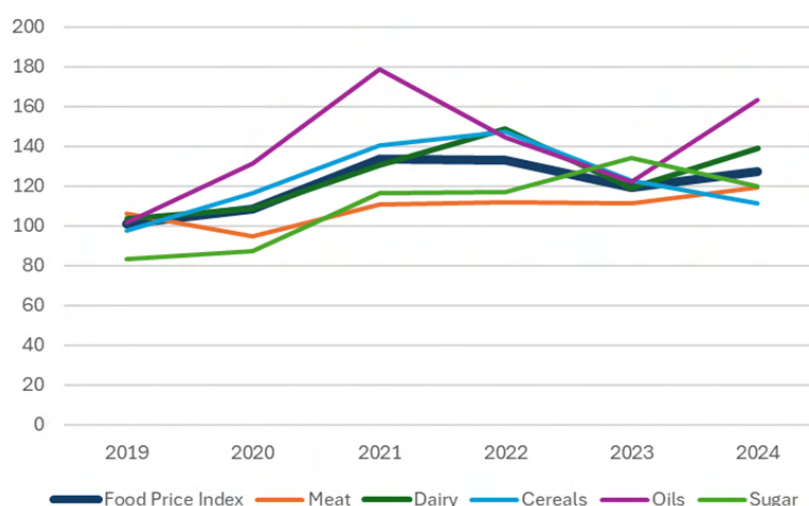
Food price inflation

The World Bank has warned that domestic food price inflation remains stubbornly high across many low- and middle-income countries, exerting continued pressure on food security worldwide. According to its Food Security update (September 2024), 77.3 per cent of low-income countries were grappling with food price inflation exceeding 5 per cent, while it was also picking up in 44 per cent of upper-middle-income countries.¹³ Real food price inflation was outstripping overall inflation in 55.6 per cent of 167 countries, signalling a persistent strain on global food markets and the challenges governments face in controlling costs. The interconnectedness of global food markets means that the CARICOM region faces the same inflationary pressures as many other low- and middle-income countries (ECLAC, 2024).

In December 2024, the FAO Food Price Index stood at 127 points (figure 8), a 0.5 per cent decrease from November, but 6.7 per cent higher than the same month in the previous year. This decline was driven by decreases in the price indices for sugar, dairy products, vegetable oils and cereals, which more than offset increases in meat prices. Despite this monthly decrease, the index remained 20.7 per cent below the peak reached in March 2022. For 2024 as a whole, the index averaged 122 points, marking a 2.1 per cent decrease from 2023. These trends underscore the ongoing volatility in global food prices, influenced by factors such as supply chain disruptions, climatic events and geopolitical tensions

Figure 8

Volatile global food prices, especially for sugar and oils, pose challenges for food security, 2019–2024



Source: FAO, *World Food Situation*, Food Price Index, at <https://www.fao.org/worldfoodsituation/foodpricesindex/en/> (accessed December 2024)

Note: The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities.

¹² Pan American Health Organization. Leading causes of death and disease burden in the Americas: Noncommunicable diseases and external causes by Ian Hambleton, Chapter 3. Theme 5. The Caribbean subregions are disproportionately affected by cardiovascular disease, cancers, and diabetes. Washington, D.C.: PAHO; 2024. Available from: <https://doi.org/10.37774/9789275128626>.

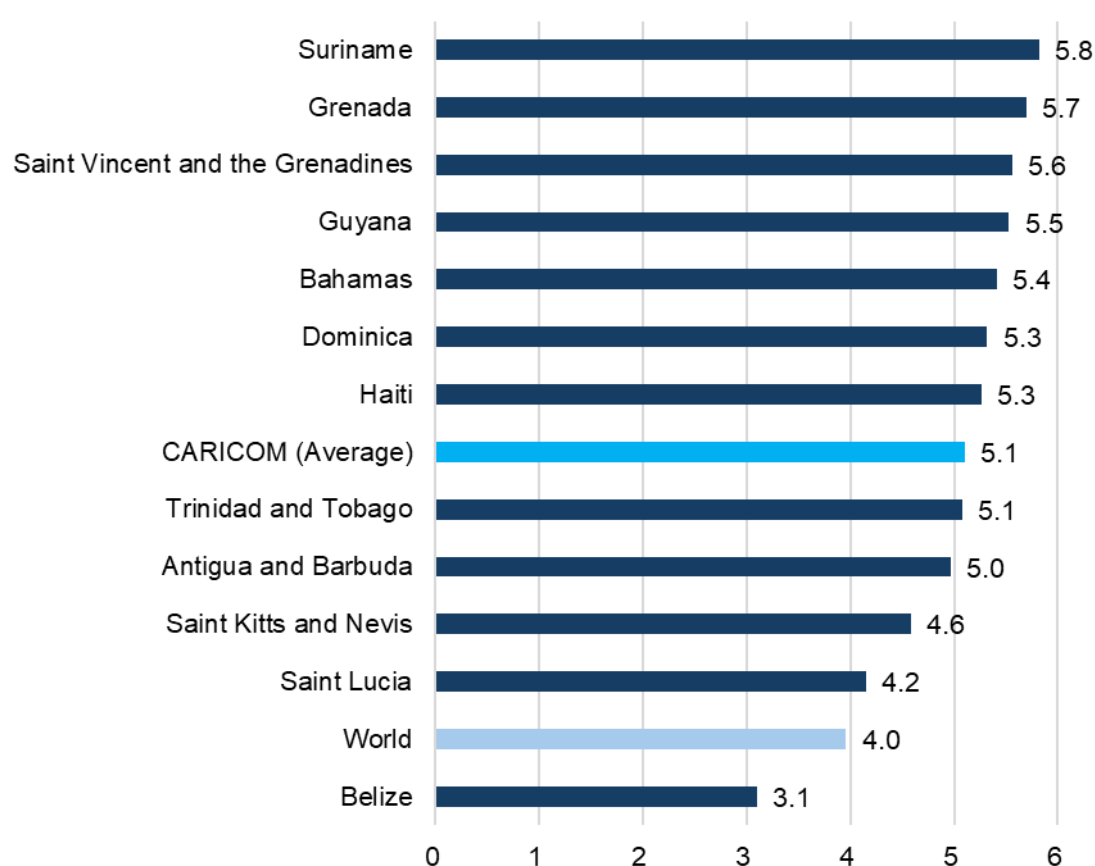
¹³ See World Bank, Food Security Update, September 26, 2024, at <https://thedocs.worldbank.org/en/doc/40ebbf38f5a6b68bfc11e5273e1405d4-0090012022/related/Food-Security-Update-CVIII-September-26-2024.pdf>

Between 2020 and 2021, the cost of a healthy diet in the Caribbean increased by 5 per cent, fuelled by lockdowns, global supply chain disruptions, and labour shortages that were triggered by the COVID-19 pandemic (figure 9). This surge in prices made it even harder for vulnerable populations to access nutritious foods. In 2021, 57 per cent of the Caribbean population could not afford a healthy diet due to rising food costs and economic pressures. The region's heavy reliance on imports, combined with global inflation, drove up local prices for essentials like wheat, oil and fertilizers. The average cost of a balanced diet reached \$4.41 per person per day (by purchasing power parity – PPP), the highest globally. By 2022, this cost rose even further, significantly exceeding the regional average in countries such as Suriname and Grenada (figure 9). Globally, food prices continue to outpace inflation, straining low-income households.

Figure 9

Most CARICOM countries face higher diet costs than the global average, straining low-income households, 2022

(US\$ per person per day by PPP)



Source: FAOSTAT, Cost and affordability of a healthy diet, at <https://www.fao.org/faostat/en/#data/CAHD> (accessed July 2024).

These rising costs highlight the need for CARICOM countries to adopt sustainable agricultural policies and reduce their reliance on imports. Rising food insecurity forces many local people to rely on cheaper, less nutritious options, contributing to malnutrition and diet-related illnesses like obesity, which further strain public health systems.

Heavy reliance on food imports

As shown in chapter I, CARICOM countries rely heavily on food imports, with 60–80 per cent of their food sourced internationally (Philips, 2022), making them vulnerable to global market fluctuations. This dependence exacerbates food insecurity during supply chain disruptions or price spikes, as seen during the COVID-19 pandemic and the Ukraine conflict, which drove up wheat and fertilizer prices.

High import dependence also ties in closely with foreign exchange volatility. Tourism-dependent economies, such as Barbados and the Bahamas, faced sharp declines in foreign exchange earnings during the pandemic, limiting their ability to secure affordable food imports (CDB, 2021; IDB, 2020). Natural disasters and global crises further strain these reserves.

Reducing food insecurity requires diversifying local food production, strengthening regional trade and minimizing dependence on volatile international markets. Policy interventions to enhance agricultural productivity and sustainable farming are crucial for building resilience (Central Bank of Barbados, 2023; World Food Programme, 2022)

3 External causes of food insecurity

Environmental vulnerability and climate change

The Caribbean is highly vulnerable to environmental challenges, particularly climate change which increases the frequency and intensity of hurricanes, droughts and floods. These catastrophic events disrupt agriculture and food supply chains. In 2024, Hurricane Beryl caused US\$160 million in agricultural damage across islands such as Dominica, Barbados and Grenada.¹⁴ Moreover, small island farmers face difficulties adapting to shifting planting seasons as climate unpredictability grows.

Prolonged droughts and heatwaves have worsened water shortages, further stressing agriculture. Grenada declared a water crisis in May 2024 due to low water levels in reservoirs, which triggered crop failures and food shortages.¹⁵ Other countries, including Trinidad and Tobago, Barbados and Belize, face similar challenges, compounded by soil degradation, deforestation and rising sea levels. Trinidad imposed water restrictions during its worst drought, while Belize experienced severe wildfires, thereby intensifying its reliance on imported food. The Caribbean's vulnerability to environmental shocks highlights the urgent need for comprehensive disaster management and sustainable agricultural practices to mitigate the ongoing climate crisis.¹⁶

Water productivity, as defined by the World Bank, measures how efficiently a country generates gross domestic product (GDP) from each cubic metre of freshwater withdrawn. It shows the economic value created per unit of water used. Higher water productivity means a country uses its water resources more efficiently, generating more economic output with less water. In CARICOM countries, data for 2020 reveal wide disparity in water productivity (figure 10). The variation may reflect differences in economic structure, industrial reliance on water and water conservation policies. Smaller island States with limited freshwater resources seem to use water more efficiently, while larger, more agriculture-based economies like Guyana may have lower productivity due to water-intensive activities such as farming. Overall, water productivity in the CARICOM region is low compared to the global average.

¹⁴ David Commissiong, *CARICOM Responding to Damage Caused by Hurricane Beryl*, Searchlight, August 27, 2024, <https://www.searchlight.vc/features/2024/08/27/caricom-responding-damage-caused-hurricane-beryl>

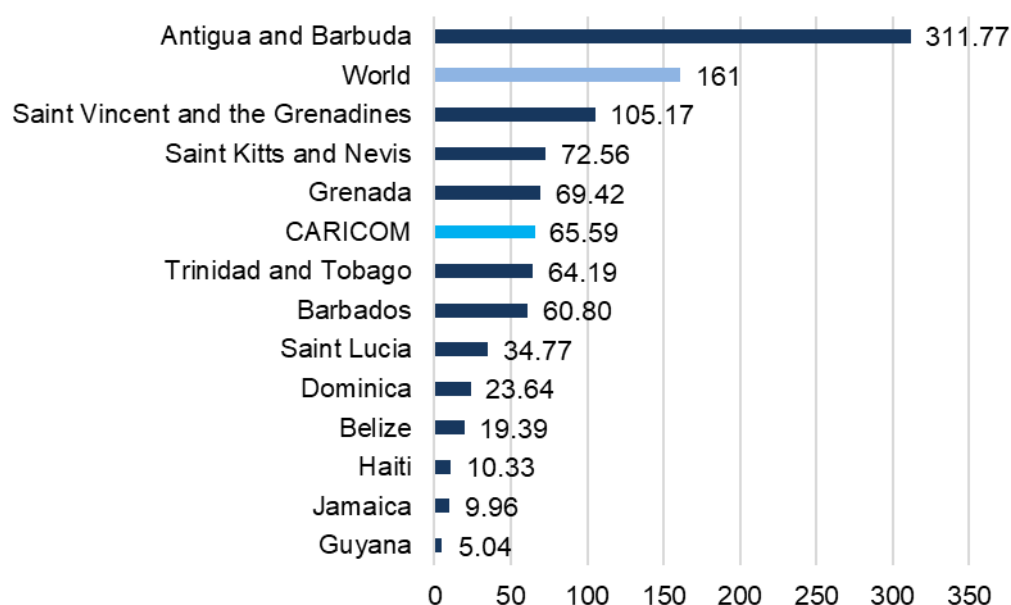
¹⁵ International Federation of the Red Cross, 2024, at <https://www.ifrc.org/article/hot-and-dry-small-caribbean-island-nation-grenada-struggles-drought-heatwaves-and-fire>.

¹⁶ Turnbull D, 2021, Food security in the Caribbean, at <https://blog.iica.int/index.php/en/blog/food-security-caribbean>.



Figure 10**Low water productivity in most CARICOM countries highlights challenges for efficient resource use, 2020**

(Constant 2015 United States dollars)



Source: UNCTAD secretariat, based on World Bank, World Development Indicators database.

Pandemics and global health crises

The COVID-19 pandemic disrupted global supply chains, leading to shortages of imported goods and rising food prices. Given the region's heavy reliance on food imports, this highlighted the need to strengthen local food systems and promote self-sufficiency. The pandemic also caused widespread unemployment, particularly in sectors like tourism and agriculture, which reduced household incomes and pushed many people into food insecurity.

Any future global health emergencies could cause similar disruptions, affecting both food availability and accessibility throughout the region. This stresses the importance of developing resilient local food systems.

Geopolitical conflicts and global supply chain disruptions

The conflict in Ukraine has disrupted global supplies of important agricultural products such as wheat and fertilizer, pushing up food prices worldwide. CARICOM countries have been directly affected by these shifts in global markets as a result of their heavy dependence on food imports. In addition, the region's dependence on international trade routes makes it highly vulnerable to supply chain disruptions caused by geopolitical tensions, sanctions or other international conflicts, further impacting food availability and prices in all the CARICOM countries.

B. Food security dashboard

To comprehensively address and mitigate food insecurity, a set of key measurable variables has been identified to capture the region's unique vulnerabilities and challenges. Drawing on both domestic and external drivers, seven core variables (table 9) form a framework for assessing food insecurity in CARICOM—serving as a practical dashboard for monitoring and policy guidance.

Table 9**Key indicators help monitor the multidimensional drivers of food insecurity in CARICOM**

Variable	Metric	Relevance to CARICOM
Prevalence of food insecurity	Percentage of population experiencing moderate/severe food insecurity	Direct measure of food insecurity levels, identifying how many people experience uncertainty in food access or reduced food intake
Prevalence of undernourishment	Percentage of the population undernourished	Tracks food utilization and access to adequate nutrition, essential for assessing public health outcomes related to food insecurity
Food price inflation	Annual percentage increase in food prices	Tracks affordability of food, critical for ensuring food access, particularly during economic crises or external market disruptions
Food import dependency ratio	Percentage of total food supply that is imported	Indicates vulnerability to global supply chain disruptions and price volatility, especially with high import reliance
Share of household food expenditure in income	Percentage of household income spent on food	Reflects degree of economic access to food and vulnerability to price changes, particularly among low-income households
Agricultural land use and productivity	Hectares of land used for agriculture, crop yield/ha	Reflects the capacity for local food production, crucial for reducing dependence on food imports and enhancing self-sufficiency
Impact of climate-related disasters	Percentage decrease in agricultural output post-disaster	Measures the stability of food production in the face of climate risks, which are frequent in CARICOM countries

Source: Author's elaboration





Chapter III

Opportunities and Challenges : an Analysis



Chapter

Opportunities and Challenges: an Analysis

Agrifood trade in CARICOM is constrained by non-tariff measures, logistical bottlenecks and limited access to finance. At the same time, there is scope to expand value addition, strengthen regional trade and increase the use of sustainability standards. Progress depends on addressing structural and policy-related constraints.

A. VSS: Balancing trade potential and inclusion risks

Voluntary sustainability standards (VSS) offer CARICOM countries a potential avenue to enhance agricultural trade by promoting sustainable practices. These standards, which focus on ethical, social and environmental criteria, can support improved market access and product value. Leveraging VSS may strengthen CARICOM's position in global markets, while also contributing to food security and economic resilience. However, the impacts of VSS adoption are not uniform and depend heavily on context, product, and scale of implementation.

The VSS Adoption Score measures how well countries integrate these standards, with higher scores generally linked to better market access and export performance. A 2021 UNCTAD and ITC analysis highlighted the score's reliability (UNCTAD, 2021). A study by the Inter-American Development Bank (IDB) found that a 1-per cent increase in VSS-certified land can increase export value by 1.86 per cent, although the impact decreases as certification expands (Dolabella and Saeteros, 2024). The main products benefiting from certification are bananas, palm oil, tea and cotton, while the impact of certification on sugarcane, cocoa, coffee and soy is less significant. The study also noted regional differences, with stronger impacts of certification on bananas and palm oil in Latin America and the Caribbean.

Nevertheless, a growing body of literature has documented several shortcomings and trade-offs associated with VSS. For example, smallholder farmers—especially those lacking access to credit, extension services or technical support—may face barriers to certification, potentially leading to exclusion from high-value markets (FAO 2014). Certification costs, audit complexity, and compliance burdens can reinforce existing inequalities within value chains. Furthermore, some standards have been critiqued for prioritising commercial interests over local development goals, limiting their transformative potential.

In summary, VSS can boost demand in developed countries, which may contribute to increasing exports from developing countries that adopt such standards for their food products. However, macro-level trends mask significant variations, highlighting the need for micro-level studies to inform effective policymaking. Further research is necessary to explore how specific VSS features, costs, and governance mechanisms affect smallholders and trade outcomes. This will help ensure that VSS are implemented in ways that are both economically beneficial and socially inclusive.

VSS uptake in CARICOM

Table 10 categorizes CARICOM economies by income level and presents the number and percentage of VSS originating from each country. The last column ("Origin") shows the proportion of VSS developed or adopted by each country relative to the total listed on the ITC Standards Map. These figures illustrate each country's contribution to global sustainability standards and their integration of VSS into agricultural trade. The table shows relatively low VSS adoption by CARICOM countries, especially compared to the rest of the Americas. They rank in the bottom third globally for VSS uptake, revealing a significant challenge in integrating sustainable practices into value chains (UNCTAD, 2021: 28).

Table 10

Extent of VSS adoption in CARICOM economies reflects limited integration into global sustainable trade frameworks

CARICOM economy	Income group	Number of VSS	Percentage of VSS
Antigua and Barbuda	High income	47	13.4
Bahamas	High income	50	14.2
Belize	Upper middle income	60	17.1
Barbados	High income	47	13.4
Dominica	Upper middle income	44	12.5
Grenada	Upper middle income	47	13.4
Guyana	High income	54	15.4
Haiti	Lower middle income	59	16.8
Jamaica	Upper middle income	55	15.7
Saint Kitts and Nevis	High income	41	11.7
Saint Lucia	Upper middle income	44	12.5
Suriname	Upper middle income	58	16.5
Montserrat	N/A	0	0.0
Trinidad and Tobago	High income	51	14.5
Saint Vincent and the Grenadines	Upper middle income	41	11.7
Active VSS worldwide (September 2024): 351			

Source: UNCTAD secretariat, based on ITC Standards Map, 2024, at <https://standardsmap.org/en/identify?origin=&destination=>; and World Bank, Classification by income database, at <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>. See also UNFSS (2020: 10-16)

Strengthening regional and international trade partnerships through VSS

Implementation of VSS could significantly help boost CARICOM's regional and international trade partnerships by ensuring that agricultural and food products meet high sustainability requirements, like those of the European Union (UNCTAD, 2021) and North America. It thereby enables member countries to access premium markets where there is high and growing demand for certified goods, such as Fair Trade and Rainforest Alliance products (UNCTAD, 2020a). For instance, Jamaica's Blue Mountain Coffee, certified by the Rainforest Alliance, is exported to the European Union. Similarly, Barbados' sugar exports to the European Union could increase from Fair Trade certification. The European Union's Farm to Fork Strategy further emphasizes sustainability, making VSS critical for future market access.¹⁷ Regionally, VSS promotes

¹⁷ European Commission, [Farm to fork strategy](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en), at https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en; and [The European Green Deal](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en), at https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

cooperation by unifying agricultural markets, easing cross-border trade and reducing administrative barriers. Harmonizing compliance can help address food security needs by ensuring safe, sustainable, and efficient food production and distribution, while economies of scale would lower certification costs. Initiatives like Trinidad and Tobago's TTBizLink, which streamlines customs procedures, demonstrate the potential of expanding digital platforms to support regional integration and improve market access for smallholder farmers.¹⁸

Increasing product value and income for smallholders through certification

While VSS have the potential to increase the value of agricultural products and improve outcomes for smallholder farmers—who represent a significant share of producers in the Caribbean—this is not guaranteed. Certified products may command higher prices in certain markets, particularly among consumers willing to pay for sustainably produced goods. However, access to certification remains challenging for vulnerable smallholders due to financial, technical and administrative barriers. Moreover, price premiums are not always assured and may be absorbed along the value chain before reaching the farmer. These constraints must be considered when assessing the role of VSS in enhancing income and resilience for small-scale producers.¹⁹

CARICOM's tourism sector offers an opportunity to boost demand for certified local products. By linking agriculture to tourism, farmers can supply hotels, restaurants and holiday resorts, catering to millions of international visitors. Promoting local produce, seafood and unique Caribbean cuisine creates a stable domestic market, showcases the region's agricultural diversity and reduces its dependence on food imports. This integration would align with the Sustainable Development Goals by supporting local economies and enhancing the stability of farmers' incomes.

In production sectors, VSS systems allow sugar producers to capture higher global market value compared to conventional sales, although prices depend on negotiations or government regulations. However, the ability to capture this added value often hinges on economies of scale, access to certification infrastructure and bargaining power within the supply chain—factors that may disadvantage small-scale farmers. Sustainability standards thus play a critical role in improving economic outcomes for producers in developing countries, but only when implemented with inclusive mechanisms that address entry barriers and support equitable benefit sharing.²⁰

Building climate and economic resilience

The integration of VSS into CARICOM's agricultural practices also presents a path to greater economic and climate-related resilience. Sustainable farming practices promoted by VSS, such as climate-smart agriculture (CSA), help reduce the vulnerability of farms to extreme weather events, which, as noted, are common in the Caribbean. CSA techniques focus on improving water efficiency, promoting agroforestry and diversifying crops, all of which contribute to mitigating the impacts of climate change.²¹

Moreover, implementing VSS could strengthen food security by reducing CARICOM's dependence on food imports. And by encouraging sustainable production within the region, VSS

¹⁸ See: <https://tradeind.gov.tt/trade-ministry-launches-enhanced-ttbizlink-application-software/>.

¹⁹ Rasche, Andreas. "Voluntary standards as enablers and impediments to sustainable consumption." *Handbook of research on sustainable consumption*. Edward Elgar Publishing, 2015. 343-358.
https://www.researchgate.net/publication/272241965_Voluntary_Standards_as_Enablers_and_Impediments_to_Sustainable_Consumption

Oya, C., Schaefer, F., & Skolidou, D. (2018). The effectiveness of agricultural certification in developing countries: A systematic review. *World Development*, 112, 282-312.
https://www.researchgate.net/publication/327691747_The_effectiveness_of_agricultural_certification_in_developing_countries_A_systematic_review

²⁰ This aligns with 2019 data from the International Sugar Organization 2019, which showed that Fair Trade certified sugar products achieve price premiums of up to 20 per cent in key markets (Global Market Report: Sugar cane prices and sustainability, September 2023, at <https://www.iisd.org/system/files/2023-09/2023-global-market-report-sugar-cane.pdf>, 19–20).

²¹ See: United Nations, Barbados and the Eastern Caribbean, Caribbean countries seek to use climate-smart technologies to revolutionize regional agrifood systems, available at <https://easterncaribbean.un.org/en/116039-caribbean-countries-seek-use-climate-smart-technologies-revolutionize-regional-agrifood>.



can help buffer against supply chain shocks from external factors such as geopolitical tensions or pandemics, thereby ensuring greater self-reliance (FAO, 2021).

Aligning with international trade and Sustainable Development Goals

Voluntary sustainability standards (VSS) align with some of the Sustainable Development Goals (SDGs), particularly SDG 2, which aims to end hunger, achieve food security and promote sustainable agriculture. The standards target small-scale food producers and sustainable practices, with 191 standards linked to boosting productivity and incomes, and 174 promoting resilient food systems. However, their role in addressing malnutrition remains limited (ITC, 2020).

For CARICOM, adopting VSS supports global sustainability goals and strengthens its members' international market positioning. Compliance with VSS can enhance trade negotiations, especially with regions like the European Union under its Economic Partnership Agreements (EPAs). This alignment attracts development assistance, technical support and access to markets that place a premium on sustainable products. Guyana's exploration of VSS in its rice sector highlights the potential for meeting international standards and opening up export opportunities through the provision of farmer training schemes.²²

VSS adoption offers CARICOM a pathway to enhance trade partnerships, drive economic growth and bolster food security. Collaborative efforts to harmonize VSS adoption can embed sustainability across agricultural policies, thereby increasing competitiveness, improving market access and reducing transaction costs. VSS can also help close institutional and development gaps between trade partners, fostering resilience and greater demand for high-quality, differentiated products (UNCTAD, 2020b).

B. Challenges

Several challenges continue to hinder growth in the region's agricultural trade, including logistical constraints and NTMs, institutional inefficiencies and vulnerabilities to external shocks. To overcome these challenges, it will be necessary to develop targeted policies aimed at improving the resilience and competitiveness of CARICOM's agricultural sector.

1. Variability in application of non-tariff measures

Barriers such as red tape and tariffs are significant trade obstacles. Red tape barriers include bureaucratic procedures, regulatory compliance requirements and excessive paperwork, which cause delays and indirect costs. These barriers affect perishable goods, in particular, as lengthy customs procedures relating to sanitary and phytosanitary (SPS) measures, technical standards and extensive documentation, for example, can cause spoilage and financial loss.

Tariffs, in contrast, are direct taxes on imports, calculated as a percentage of the value of goods. They generate revenue and protect domestic industries by making imports more expensive, thereby encouraging local consumption. Tariffs are predictable, as outlined in trade agreements and regulations.

Non-tariff measures like SPS standards, technical barriers to trade (TBT), and import/export regulations pose significant challenges for CARICOM's agricultural trade (ITC, 2015). Small farmers and exporters often find it too costly to comply with stringent international requirements, particularly those of Europe and North America (ITC, 2015: 19), which limits their access to premium markets.

²² See Sustainable Rice Platform, Scaling the adoption of sustainability best practices, available at <https://sustainableice.org/our-capabilities/>

Table 11**Variation in non-tariff measures across CARICOM countries reveals fragmented trade regulations, June 2024**

(Number of non-tariff measures initiated and in force)

CARICOM member	Sanitary and phytosanitary standards	Technical barriers to trade	Special safeguards	Tariff-rate quotas
Antigua and Barbuda	4			
Barbados	8	11	88	36
Belize	9	14		
Dominica		28		
Grenada		30		
Guyana	1	59		
Haiti	1	1		
Jamaica	15	139		
Saint Lucia		55		
Saint Vincent and the Grenadines	1	13		
Suriname		1		
Trinidad and Tobago	5	130		

Source: UNCTAD, International Classification of Non-tariff Measures, 2019 version; World Trade Organization, Integrated Trade Intelligence Portal, at <https://i-tip.wto.org/goods/Forms/MemberView.aspx?mode=modify&action=search>.

One of the main challenges with NTMs in CARICOM is their inconsistent application among member States. Some CARICOM member States impose significantly more NTMs than others (table 11) and enforce different standards and regulations, leading to inefficiencies and higher compliance costs. Stringent or inconsistent SPS measures, lengthy certification processes and outdated legislation hinder intraregional trade. In addition, the lack of harmonization in technical regulations and import quotas adds complexity and costs for small-scale traders. Countries with a larger number of NTMs often enforce stricter SPS and TBT requirements, which may serve as protective measures but also create trade barriers for regional producers. This uneven regulatory landscape complicates market access, particularly for small and medium-sized enterprises (SMEs) that struggle to meet varying compliance requirements across CARICOM countries. Addressing these inconsistencies is crucial for facilitating smoother intraregional trade and enhancing the competitiveness of local agricultural producers.

2. Logistical and infrastructure constraints

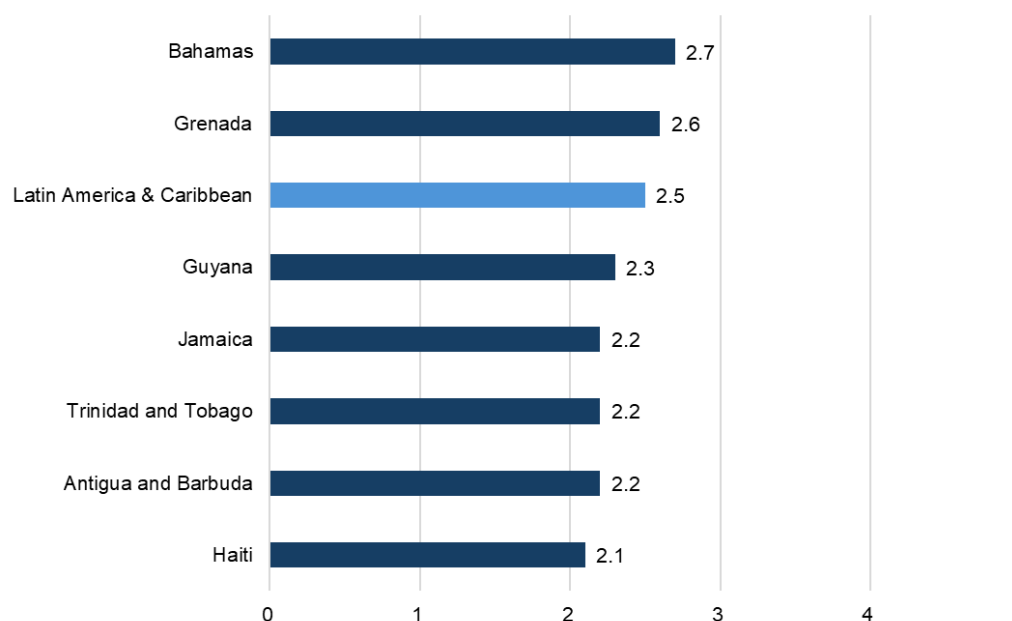
The Caribbean region faces logistical challenges that hinder agricultural trade both within CARICOM and internationally. Weak infrastructure, including inadequate transport networks, port facilities and storage capacity, raises export costs and delays shipments. The region's geographical dispersion complicates transportation and trade. These issues, highlighted at the Global Supply Chain Forum 2024 (UNCTAD, 2024), impact food security and connectivity. Thus, improving infrastructure and adopting long-term logistics strategies are essential for reducing costs and enhancing global food security.

The logistics performance index shows the degree of variation among CARICOM countries (figure 11). In customs clearance efficiency, the Bahamas (2.7) and Grenada (2.6) surpass the regional average of 2.476, while Guyana, Trinidad and Tobago, Jamaica and Haiti (2.1) lag behind.



Figure 11

Customs clearance efficiency varies across CARICOM, with only a few countries exceeding the Latin American and Caribbean average, 2022



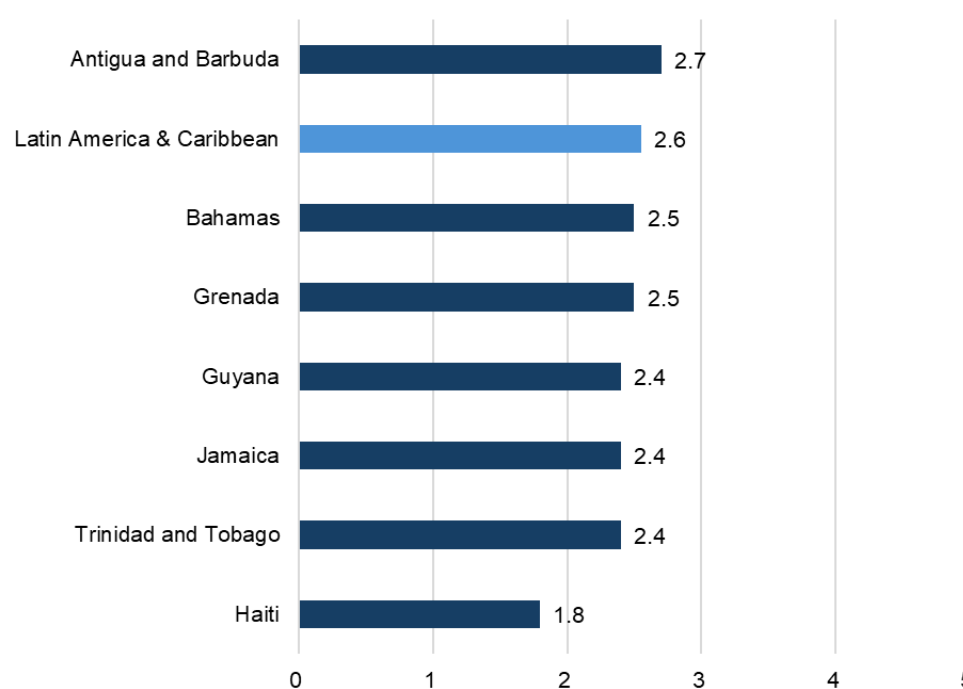
Source: UNCTAD secretariat calculations, based on data from the World Bank, Logistics Performance Index: Efficiency of customs clearance process.

Note: (1=low to 5=high).

In trade and transport infrastructure, Antigua and Barbuda leads (2.7), with the Bahamas, Trinidad and Tobago, Jamaica and Guyana scoring 2.4–2.5. Haiti faces severe limitations with a score of only 1.8 (figure 12)

Figure 12

Trade and transport- infrastructure quality remains low in many CARICOM countries, limiting competitiveness in agri-food exports, 2022



Source: UNCTAD secretariat calculations based on data from the World Bank, 2020, Logistics performance index: Quality of trade and transport-related infrastructure

Note: (1=low to 5=high)

Cold storage shortages and inefficient supply chains for perishables like fruits, vegetables and seafood result in post-harvest losses of up to 30–40 per cent, which reduces export potential.²³ Added to this, SIDS often rely on external shipping routes, which can be expensive and subject to delays, particularly during peak demand seasons or when affected by natural disasters (CDB, 2023). Guyana, a major rice producer, has outdated ports and limited storage facilities, causing export delays and losses that reduce its competitiveness, particularly in European markets.

3. Administrative barriers to trade

The institutional capacity to support agricultural trade in CARICOM is often limited by bureaucratic inefficiencies, overlapping regulations and uncoordinated policies. These barriers slow down trade processes, increase costs and deter investment. For example, exporting agricultural products often involves navigating complex frameworks, such as slow customs, duplicate inspections and inconsistent regulation enforcement. The absence of a unified regional strategy further complicates scaling businesses under regional trade agreements.

Table 12 highlights variations in administrative and procedural compliance times across the CARICOM region, affecting trade efficiency, especially for perishables. For exports, the time required for border compliance varies widely across CARICOM countries, reflecting differences in customs regulations and procedural rigour. In some cases, inefficient customs processing can delay the timely export of goods, which adversely affects sectors that are reliant on time-sensitive logistics, such as agriculture. Documentary compliance times are particularly burdensome, causing delays in some countries, which can discourage exporters from engaging in regional and international markets. Prolonged checking of documentation requirements not only reduces the flow of trade, but also increases the risk of product spoilage, particularly for perishable goods.

Table 12

Lengthy border and documentary compliance times constrain trade efficiency across the CARICOM region, 2019

<i>Unit: Hours</i>	Time to Export		Time to Import	
Country	Border compliance	Documentary compliance	Border compliance	Documentary compliance
Antigua and Barbuda	61	51	61	48
Bahamas, The	36	12	51	6
Barbados	41	48	81	46
Belize	96	38	30	36
Dominica	36	12	39	24
Grenada	101	13	37	24
Guyana	72	200	84	156
Haiti	28	22	83	28
Jamaica	58	47	80	56
St. Kitts and Nevis	27	24	37	33
St. Lucia	27	19	27	14
St. Vincent and the Grenadines	28	48	48	24
Suriname	84	12	48	24
Trinidad and Tobago	60	32	78	44
Latin America & Caribbean	55	35	56	43
OECD members	16	4	14	6
World	53	45	67	53

Source: UNCTAD secretariat, based on data from the World Bank, World Development Indicators database.

²³ FAO, Seeking end to loss and waste of food along production chain, available at <https://www.fao.org/in-action/seeking-end-to-loss-and-waste-of-food-along-production-chain/en/>

The compliance times for imports show a similar pattern, with checking for documentary compliance consistently requiring more time than for border compliance. This imbalance points to significant bureaucratic obstacles within CARICOM that undermine efficient import processing and increase transaction costs. The implications for food security in the region are substantial: delays in the importation of essential food items, exacerbated by lengthy documentary procedures, can lead to higher prices and reduced access to diverse food products. Therefore, the reduction of these administrative and documentary burdens through streamlined trade facilitation policies would help improve CARICOM's trade efficiency and support food security objectives.

Digitalization is a useful tool for reducing border and documentary compliance times in CARICOM, where trade-related procedures are often slowed down by excessive paperwork and inefficient infrastructure. CARICOM member countries face bureaucratic hurdles, outdated systems and a lack of advanced technologies, all of which contribute to longer processing times for imports and exports. For time-sensitive sectors like agrifood, reducing these delays is essential (ECLAC, 2017-2021).

Implementing digital solutions, such as electronic customs processing and introducing digital phytosanitary certificates, could significantly streamline trade within CARICOM by enabling "paperless" transactions. Such digitalization efforts would not only speed up border procedures, but also align CARICOM countries with the WTO's trade facilitation goals.²⁴

4. Limited implementation of trade agreements

CARICOM has several trade agreements in place, including the CARICOM Single Market and Economy (CSME) arrangement, the economic partnership agreement with the European Union and some bilateral agreements. The agreements offer major frameworks aimed at deepening economic integration, promoting sustainable development and enhancing trading relations for Caribbean countries. However, they have done little to overcome the real barriers to agricultural trade. Many of them focus primarily on reducing tariffs, but fail to tackle the NTMs, logistical barriers and institutional weaknesses that restrict trade. And challenges to implementation have resulted in slower than expected outcomes.

CARICOM Single Market and Economy

The CSME was created in the early 2000s to facilitate the free movement of goods, services, capital and labour among CARICOM member States, so as to foster a unified economic space aimed at making the region more competitive globally. According to the CARICOM secretariat,²⁵ progress has been made in areas such as harmonization of some trade-related policies, free movement of persons with certain skill categories, and the establishment of regional institutions to support integration. However, real implementation has been uneven and limited by several structural and political challenges. Major impediments include the varying levels of economic development among CARICOM countries, limited capacity to implement policies and inconsistent policy applications across member States, a lack of enforcement mechanisms, and reluctance by some national governments to fully open their borders to labour mobility due to their fear of the potential impacts on domestic employment.

European Union-CARIFORUM Economic Partnership Agreement

This agreement was signed in 2008 to promote economic development and foster trade by providing duty- and quota-free access to the European Union market. The EPA also aims to enhance cooperation in areas such as intellectual property, public procurement and sustainable development. However, despite these ambitious objectives, the agreement has faced significant implementation challenges, resulting in lower-than-expected utilization rates among CARICOM exporters. It has struggled to gain traction as a market catalyst. The agreement's limited impact is attributed to low awareness, resource shortages and the global recession, which have hampered its implementation across member States.

²⁴ See: <https://caricom.org/caricom-secretariat-and-caribbean-agency-for-justice-solutions-cajs-forge-partnership-to-accelerate-digital-transformation/>, June 2023.

²⁵ CARICOM Secretariat, 2020, Report on CSME implementation, at <https://caricom.org/documents/annual-report-2020/>

While some larger CARICOM exporters, like Jamaica and Trinidad and Tobago, have benefited from the EPA, many smaller countries have failed to fully capitalize on its benefits. They are struggling with regulatory compliance, market access and insufficient export readiness (ITC, 2013: 55–58). Their lack of awareness and technical understanding of the EPA, combined with challenges in meeting European Union product standards, has limited the growth of exports to the European Union.

CARICOM will therefore need to address these structural and informational barriers, possibly with greater investment in trade facilitation, technical assistance and regional policy coordination.

5. Limited access to finance and investment

Many smallholder farmers in CARICOM countries struggle to access affordable financing without which they cannot afford to invest in the necessary infrastructure, such as irrigation systems, cold storage or certification processes, which are critical for complying with VSS and entering premium markets. The lack of access to financing and investment also hampers technological innovation and productivity improvements, further limiting their competitiveness in regional and international markets.

Traditional lending institutions often view agriculture as a high-risk sector due to its vulnerability to external shocks such as climate change and market volatility. As a result, financial products available to farmers tend to come with high interest rates or restrictive terms, or are simply inaccessible for small-scale producers.

Some initiatives have emerged to address the Caribbean's dependence on food imports, such as the European Union-CDB Regional Food Security Programme.²⁶ Funded by the Caribbean Development Bank (CDB) and the European Union, it provides financing for small and medium-sized enterprises in the agricultural sector, helps strengthen resilience to natural disasters and enhances competitiveness in food production and distribution.

6. Ensuring the nutritional quality of traded food

An increasingly important challenge for CARICOM is ensuring that the food traded within and beyond the region, especially imports, contributes positively to public health. The high availability and consumption of ultra-processed foods, often high in salt, sugar and unhealthy fats, have been linked to the region's rising burden of obesity and non-communicable diseases (NCDs). As regional food systems evolve, it is essential that trade policies also consider the nutritional value of food products to avoid exacerbating these public health issues.

Efforts to expand trade in fresh fruits, vegetables, and other nutrient-rich foods are not only a matter of economic opportunity but also a strategy for improving health outcomes. Integrating nutrition-sensitive trade policies can help align agricultural and public health goals, supporting regional well-being while reducing long-term healthcare costs. As such, nutrition should be seen as a core consideration in agricultural trade discussions across CARICOM.

²⁶ See: <https://www.caribank.org/newsroom/news-and-events/new-cdb-eu-financed-programme-strengthen-caribbean-food-security>.



Chapter IV

Conclusions and policy recommendations



Chapter

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A Conclusions

Dependence on imports and regional vulnerability: An analysis of the structure of agrifood trade in the Caribbean – a region consisting mainly of SIDS – reveals significant dependence on imports to meet food demand. In 2023, agrifood imports amounted to \$7.1 billion, representing 18.3 per cent of all imports, with 28.1 per cent of CARICOM's total export value devoted to food purchases. This reliance, in contrast to neighbouring South and Central America, makes the Caribbean especially vulnerable to international supply disruptions, which is a serious problem, as 17.2 per cent of the region's population faces moderate or severe food insecurity. Moreover, access to a healthy diet is the most expensive in Latin America and the Caribbean, averaging \$5.16 per person daily, which is 30 per cent higher than the global average.

Dependence on grains and financial vulnerability: Another notable concern is the high level of dependence on grain imports, which are essential to the region's basic diet. CARICOM island States rely on grain imports at rates ranging between 86 and 100 per cent. This dependence heightens the region's vulnerability to international price fluctuations and supply issues. In 12 Caribbean countries, food imports account for more than 20 per cent of their total export value, exposing them to significant economic fragility in addressing challenges relating to food insecurity.

Need to improve local production and foster regional integration: Limited local production and low levels of intraregional trade (only 11.5 per cent of agrifood imports in 2023) reflect weak integration within regional value chains. Diversifying local agricultural production, along with a focus on high-value products and processed goods, could open new revenue streams while reducing the region's dependence on imported foods. Strengthening regional cooperation and facilitating trade within CARICOM are essential steps to reduce the region's vulnerability and ensure greater food self-sufficiency.

International trade challenges – tariffs and logistical constraints: CARICOM countries face several structural challenges that complicate efforts to reduce their reliance on imports. One of the main obstacles is high average tariffs on food products, which hover at around 20 per cent, further increasing the cost of imported foods. This situation is compounded by low maritime connectivity, high freight costs and limited logistics infrastructure, which hinder efficient food distribution and increase consumer costs. These factors, along with non-tariff barriers like SPS standards, add compliance time and operational costs, especially for perishable goods.

Administrative barriers and trade agreement challenges: Institutional capacity to support agricultural trade in CARICOM is often limited by bureaucratic inefficiencies, overlapping regulations and a lack of coordinated policies. This creates administrative hurdles that slow down trade-related processes, increase costs, and discourage both domestic and international investments in the agricultural sector. Several trade agreements, such as the CSME and the EPA with the European Union, lack specific provisions to facilitate agricultural trade, thus limiting their positive impact on regional food security.

Potential of VSS to boost trade and resilience: VSS, which include ethical, social and environmental criteria, can offer a pathway for CARICOM countries to improve their agricultural trade by inducing them to adopt sustainable practices that may enhance their access to high-value markets and strengthen economic resilience. In some markets, such as the European Union and North America, certified products are increasingly valued, particularly in specific sectors. However, market access gains are not automatic and often depend on additional factors such as



compliance costs, buyer requirements, and supply chain relationships.²⁷ Additionally, the use of VSS has the potential to contribute to regional integration by reducing administrative barriers and promoting a unified agricultural market across the CARICOM region. If properly implemented, this could help strengthen food security, encourage regional collaboration and allow economies of scale.

Empowerment of vulnerable populations through inclusive agricultural development: A stronger focus on gender equality and inclusion is essential, not only for ensuring equitable access to resources, but also for driving sustainable agricultural development across CARICOM. Empowering women, youth and persons with disabilities to actively participate in the agricultural trade sector could enhance productivity and innovation, as these groups can bring unique perspectives and offer solutions to local challenges. By addressing structural inequalities and supporting the economic potential of marginalized communities, CARICOM can foster a more resilient agricultural sector that contributes to both social and economic stability. This inclusive approach aligns with broader Sustainable Development Goals, ensuring that growth in the agricultural trade sector benefits all members of society and contributes to more just and equitable development in the region.

Climate vulnerability and the need for environmental resilience: The Caribbean region is highly vulnerable to natural disasters. In particular, climate change is increasing the frequency of extreme weather events, such as hurricanes and droughts, thus posing a continuous threat to local agricultural production. The frequent disruption of agricultural production negatively impacts food security. To mitigate this effect and reduce the region's vulnerability, it is vital to foster sustainable agricultural practices such as climate-smart agriculture and climate resilience.

Nutrition-related health burdens: The rise in obesity and non-communicable diseases (NCDs) such as diabetes, hypertension, and cardiovascular conditions represents a growing challenge for CARICOM. These health burdens are closely linked to the region's dependence on imported ultra-processed foods, which are often high in salt, sugar and unhealthy fats. Addressing food security must therefore include a focus on the nutritional quality of food available and traded within the region. Promoting access to healthier, locally produced foods and integrating nutrition-sensitive policies into trade and agricultural strategies are key steps toward improving public health and reducing long-term pressures on national healthcare systems.

²⁷ Aguilar, Francisco X., and Richard P. Vlosky. "Consumer willingness to pay price premiums for environmentally certified wood products in the US." *Forest policy and Economics* 9.8 (2007): 1100-1112.
https://www.researchgate.net/publication/222329180_Consumer_willingness_to_pay_price_premiums_for_environmentally_certified_wood_products_in_the_US

B. Policy recommendations

Foster intraregional trade and cooperation to enhance food security and resilience:

Reducing non-tariff barriers and enabling mutual recognition of VSS would facilitate the smoother movement of goods, which would help stabilize food supplies and reduce reliance on agrifood imports. Implementing initiatives such as "25 by 2025," which aims to cut the region's food import bill by 25 per cent through increased local production, is essential to bolster these efforts.²⁸ Additionally, establishing regional food reserves, creating knowledge-sharing platforms for sustainable practices, and coordinating strategies to lower food import bills will contribute to greater self-sufficiency, ensuring a more stable and more affordable food supply, especially in times of crisis.

Strengthen trade facilitation and logistics infrastructure: Priority should be given to eliminating non-tariff barriers and streamlining customs processes to improve trade efficiency. Harmonizing standards and regulations, particularly SPS measures, would facilitate smoother trade across borders, and benefit SMEs by facilitating their market access. Implementing electronic single-window systems and regulatory convergence should help with this process. Additionally, establishing food distribution centres in strategic locations could reduce transportation costs and delivery times, thereby enhancing food accessibility and affordability.

Build resilience in agricultural production: To address the vulnerability of agricultural production to climate change, CARICOM economies need to invest in resilient agricultural practices. This includes providing financial support to farmers for adopting climate-smart technologies, expanding insurance schemes to protect against climate-induced losses, and improving irrigation infrastructure to reduce dependence on rain-fed agriculture. These measures will not only secure agricultural output, but also contribute to regional food security by stabilizing domestic production and reducing reliance on imports.

Develop a regional strategy for sustainable agriculture through VSS: CARICOM could consider developing a regional framework to assess the feasibility and relevance of adopting voluntary sustainability standards (VSS) across value chains and countries. Rather than promoting blanket adoption, the focus should be on identifying which standards work best for which products, markets and types of producers. This strategy could include targeted support to offset certification costs, the creation of regional certification bodies, and harmonised requirements to ease compliance—particularly for smallholders. Where appropriate, well-adapted VSS may help improve the quality and sustainability of exports and enhance market access. It could also be worth exploring the development of a regional label for sustainably produced CARICOM food products, based on inclusive and evidence-based criteria.

Invest in capacity-building and training in sustainable practices: Investing in training programmes for farmers and agribusinesses on sustainable practices and VSS compliance is essential for long-term sustainability. Training should focus on sustainable farming methods, supply chain management and environmental stewardship, thus equipping agricultural producers with the skills to meet international standards and improve productivity. This focus on capacity-building will also contribute to more resilient agricultural practices, better soil health and higher crop yields.

Align with international funding and technical assistance initiatives: CARICOM should proactively seek partnerships with international organizations and donors that support sustainability and food security to secure funding and technical assistance for VSS adoption and climate-resilient agricultural practices. They can provide critical resources for capacity-building, infrastructure improvement and technology transfer, thereby strengthening the region's agricultural sector and food security.

Advocate for CARICOM's role in global food security forums: It is important for CARICOM to participate in international forums to highlight its dual role as both a food-import-dependent region

²⁸ See remarks by Director, Sectoral Programmes, CARICOM Secretariat, at a Special Meeting of COTED (Agriculture) | 11 October 2024, St. Vincent and the Grenadines, at <https://caricom.org/remarks-by-director-sectoral-programmes-caricom-secretariat-ambassador-david-prendergast-at-a-special-meeting-of-coted-agriculture-11-october-2024-st-vincent-and-the-grenadines/>



and a contributor to global food security. By positioning itself as a recipient of climate and trade resilience funding, CARICOM can push for greater support in adapting its food systems to global challenges, including climate change and supply chain disruptions. Increased international recognition could attract financial and technical support, aiding in the long-term resilience of CARICOM's food systems.

These suggested policy recommendations collectively offer a strategic approach to enhancing CARICOM's agrifood trade, food security and resilience against global shocks. There is also need for greater links between agrifood trade and nutrition to ensure an adequate supply of healthy nutritious food for local consumption. By addressing structural weaknesses in trade, production and sustainability, these measures would help CARICOM build a more robust and self-sufficient agricultural sector that supports both local and regional food needs ²⁹.

²⁹ See remarks by Director, Sectoral Programmes, CARICOM Secretariat, at a Special Meeting of COTED (Agriculture) | 11 October 2024, St. Vincent and the Grenadines, at <https://caricom.org/remarks-by-director-sectoral-programmes-caricom-secretariat-ambassador-david-prendergast-at-a-special-meeting-of-coted-agriculture-11-october-2024-st-vincent-and-the-grenadines/>

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Annex

Annex I

Table A1

List of HS2 sectors – Agrifood categories by HS codes

01	Live animals
02	Meat and edible meat offal
03	Fish and crustaceans, molluscs and other aquatic invertebrates
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere ...
05	Products of animal origin, not elsewhere specified or included
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage
07	Edible vegetables and certain roots and tubers
08	Edible fruit and nuts; peel of citrus fruit or melons
09	Coffee, tea, maté and spices
10	Cereals
11	Products of the milling industry; malt; starches; inulin; wheat gluten
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal
13	Lac; gums, resins and other vegetable saps and extracts
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included
15	Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats
16	Preparations of meat, of fish, of crustaceans, molluscs or other aquatic invertebrates, or ...
17	Sugar and sugar confectionery
18	Cocoa and cocoa preparations
19	Preparations of cereals, flour, starch or milk; pastrycooks' products
20	Preparations of vegetables, fruit, nuts or other parts of plants
21	Miscellaneous edible preparations
22	Beverages, spirits and vinegar



Annex II

RCA formula

Revealed comparative advantage (RCA) is based on Ricardian trade theory, which posits that patterns of trade among countries are governed by their relative differences in productivity. Although such productivity differences are difficult to observe, an RCA metric can be readily calculated using trade data to "reveal" such differences. While the metric can be used to provide a general indication and first approximation of a country's competitive export strengths, it should be noted that applied national measures which affect competitiveness such as tariffs, non-tariff measures, subsidies and others are not taken into account in the RCA metric (<https://unctadstat.unctad.org/EN/RcaRadar.html>).

Country A is said to have a revealed comparative advantage in a given product i when its ratio of exports of product i to its total exports of all goods (products) exceeds the same ratio for the world as a whole:

$$RCA_{Ai} = \frac{\frac{X_{Ai}}{\sum_{j \in P} X_{Aj}}}{\frac{X_{wi}}{\sum_{j \in P} X_{wj}}} \geq 1$$

Where

- P is the set of all products (with $i \in P$),
- X_{Ai} is the country A's exports of product i ,
- X_{wi} is the world's exports of product i ,
- $\sum_{j \in P} X_{Aj}$ is the country A's total exports (of all products j in P), and
- $\sum_{j \in P} X_{wj}$ is the world's total exports (of all products j in P).

When a country has a revealed comparative advantage for a given product ($RCA > 1$), it is inferred to be a competitive producer and exporter of that product relative to a country producing and exporting that good at or below the world average. A country with a revealed comparative advantage in product i is considered to have an export strength in that product. The higher the value of a country's RCA for product i , the higher its export strength in product i .